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EXECUTIVE SUMMARY

- Nineteen, approximately one mile reaches of the East Fork White River, spanning over 180 river miles, were sampled beginning at the confluence with the White River and ending near Columbus, Indiana. Fish and habitat data were collected at each sampling reach.
- All sampling efforts yielded 14,753 fish weighing approximately 3,426 lbs, representing 17 families and 86 species. Crews collected 69 species via electrofishing and an additional 17 species via seines. Sportfish comprised approximately 9% of the total sample by number and 18% by weight.
- For combined electrofishing and seining data, IBI scores ranged from 34 to 58 of a maximum of 60. There was no significant correlation between QHEI and IBI scores for all reaches. Of 19 sampling reaches, 11 were scored as "fair" or lower.
- Channel catfish in the EFWR grew at similar rates to channel catfish in the non-commercial fishing zone of the Wabash River. At the current estimates of annual mortality, natural mortality, and exploitation, growth overfishing was not occurring for channel catfish in the EFWR. If, however, exploitation increased from about 16% to 25%, growth overfishing would be occurring at the current minimum size limit of 10 in.
- The current 10 in TL minimum size limit does not protect mature channel catfish because they reach 10 in TL by age 2 and female channel catfish do not reach sexual maturity until age 3. According to creel data from 2003, a 14 in minimum size limit would protect about 25% of the harvested channel catfish. It is recommended to form a work group to review catfish size limits for the state.
- There were at least 16 public access sites within the study area, which is approximately one site per 11 river miles. In general, biologists felt that ramp conditions were good and there were no suggestions for new access sites.

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INTRODUCTION

The East Fork White River (EFWR) begins in Bartholomew County and flows 239 mi southwest and joins the West Fork White River in Pike and Daviess Counties to form the White River. The EFWR drains approximately 5,725 mi² up to the confluence with the West Fork, which drains approximately 5,372 mi². Commercial fishing is allowed from where the Lost River empties into the EFWR (river mile 83) to the confluence with the Wabash River. There is one dam located in Williams, Indiana, which impedes fish from moving up river.

Major portions of the East Fork White River have not been surveyed by the IDNR while some portions have been surveyed sporadically. Currently, the IDNR does not have a comprehensive fish management or public access plan for the EFWR. The objective of this project was to collect fish community, fish habitat, and public access data to provide information needed to develop a river-wide management plan. Along with fish and public access data, recreational use data were collected in 2003 via a creel survey from April to October (Hoffman 2004).

METHODS

Nineteen, approximately one mile reaches of river were established beginning at the confluence with the White River (RM 1.0) and ending at RM 189.1 near Columbus, Indiana (Figure 1; Table 1). Water chemistry data was collected at each reach according to the Manual of Fisheries Survey Methods (Shipman 2001). Habitat data was collected and scored at each reach according to the Qualitative Habitat Evaluation Index (QHEI) (Rankin 1989). Fish were sampled using boat-mounted DC electrofishing gear and sampling followed standard protocol for rivers and streams in Indiana (Shipman 2001). Each bank of the reach was sampled with approximately 0.5 h of effort. Additionally, a minimum of four seine hauls were conducted at each reach. All fish were measured to the nearest 0.1 in TL. Fish weights were estimated using weight-length regressions. Scales were collected from a subsample of five fish per 0.5 in-group of sportfish. Age-length keys were constructed to calculate mean length at age. Growth was analyzed by fitting a von Bertalanffy growth equation, using Fishery Analyses and Simulation Tools software (FAST; Slipke and Maceina). An IBI score was assigned to each reach based upon the methods of Simon (1998).

RESULTS

Water chemistry and fish habitat

Water chemistry data were within ranges adequate to sustain fish survival (Table 2). Secchi disk measurements ranged from 12 to 59 in. Dissolved oxygen ranged from 4.1 to 12 ppm. Conductivity measurements were normal and ranged from 320 to 600 µS. Water temperatures ranged from 64 to 74 °F. Fish habitat scores (QHEI) ranged from 40.5 to 84 and averaged 65.2 for all reaches (Table 3). From the mouth of the EFWR up to RM 119.6, QHEI scores varied greatly compared to QHEI scores from sampling reaches above RM 119.6.

Fisheries survey data

All sampling efforts yielded 14,753 fish weighing approximately 3,426 lbs, representing 17 families and 86 species. Crews collected 69 species via electrofishing and an additional 17 species via seines. Spotfin shiner was the most abundant species (16%), followed by gizzard shad (13%), bullhead minnow (12%), and bigeye chub (9%). Smallmouth buffalo (15%) was the most abundant species collected by weight, followed by gizzard shad (11%), common carp (10%), and freshwater drum (10%). Sportfish comprised approximately 9% of the total sample by number and 18% by weight. There were 22 species, most of them small cyprinids, collected above Williams Dam that were not collected below the dam (Appendix). There were 13 species collected below Williams Dam that were not collected above the dam. Many of these species would be expected to make spawning runs, which would be inhibited by the dam (e.g. shovelnose sturgeon, walleye, white bass).

For combined electrofishing and seining data, IBI scores ranged from 34 to 58 of a maximum of 60. There was no significant correlation between QHEI and IBI scores for all reaches (R = 0.2478; P = 0.306). However, it is interesting to note that IBI and QHEI scores were positively correlated only when the stations above Williams Dam were included in the analysis (R = 0.6385; P = 0.025). The average IBI score was 43 (median = 44), which is considered "fair." Six of 19 sampling stations scored "good" or better. Of 19 sampling reaches, 11 were scored as "fair" or lower.

Carp and minnow family (Cyprinidae)

The Cyprinidae family comprised 26 species and accounted for 64% of the total number of fish collected and 11% of the total weight of fish collected. Spotfin shiner, bullhead minnow, and bigeye chub were among the most abundant species in this family. Grass carp, pugnose shiner and silverband shiner were among the least collected species. Seining accounted for over 86% of the fish collected from this family.

Herring family (Clupeidae)

Gizzard shad and skipjack herring were the only representatives of the Clupeidae family and comprised 13% of the total sample by number and 11% by weight. Nearly all of the Clupeids were collected via electrofishing and they were mostly gizzard shad.

Sunfish family (Centrachidae)

The Centrachidae family comprised 12 species and represented 6% of the total sample by number and weight. Spotted bass was the most numerous sunfish species, representing almost 4% of the total sample. Spotted bass were collected at every sampling reach and spotted bass up to 14.7 in TL were collected (Figure 2). Spotted bass grew fast (K = 0.6) up to age 4, but older fish may not have been accurately aged because growth becomes linear after age 4 (Table 4). Annual mortality was estimated to be 52% (\pm 3%). Exploitation of spotted bass was likely very low (Hoffman 2004) and corresponding yield would not change if minimum size limits were reduced. However, mean TL would decrease if a smaller minimum size limit were established.

Longear sunfish and bluegill were the next most common sunfish species. Longear sunfish up to 6.7 in TL and bluegill up to 7.8 in TL were collected.

Smallmouth bass was the next numerous sunfish species collected and smallmouth bass up to 17.8 in TL were collected. There was a peak in the length frequency distribution around 3 in TL and a peak around 7 in TL (Figure 2). The PSD was 33, the RSD-P was 14, and the RSD-M was 10. Smallmouth bass grew fast initially (K = 0.5), but growth quickly slowed down after age 3 (Table 4). Ages older than five were likely underestimated.

Largemouth bass, white crappie, black crappie, and redear sunfish were collected in small numbers. Warmouth and orangespotted sunfish were collected in even smaller numbers.

Sucker family (Catostomidae)

The Catostomidae family comprised 14 species and represented only 5% of the total sample by number, but over 45% by weight. Golden redhorse, river carpsucker, and smallmouth buffalo were among the most abundant species of this family and they were collected at 73% or more of the sampling reaches. Shorthead redhorse, silver redhorse, black redhorse, quillback, and northern hog sucker were collected in fewer numbers. Other species collected were bigmouth buffalo, highfin carpsucker, black buffalo, and spotted sucker. Approximately 93% of the individuals from this family were collected via electrofishing.

Livebearer family (Poecillidae)

The Poecilidae family is represented by one species, the western mosquitofish. This species accounted for almost 4% of the total number of fish collected. Western mosquitofish were collected at 10 of the 19 sampling reaches.

Catfish family (Ictaluridae)

The Ictaluridae family comprised five species, accounting for 2% of the total number and 10% of the total weight collected. Channel catfish was the most abundant species of this family, accounting for almost 2% of the total number and nearly 8% of the total weight collected. Channel catfish were collected at all sampling reaches except one (RM 166.6). The lengthfrequency distribution resembled a normal distribution, excluding the peak at 2 in, which were age-0 fish. The PSD for channel catfish was 69 and the RSD-P was 7. Channel catfish ranged from 1.2 to 27.5 in TL (Figure 2) and weighed up to 7.9 lbs. Growth and mortality data could not be separated between commercial and non-commercial reaches of the EFWR due to low sample size; thus, data were combined and analyzed. Based on the slope of the von Bertalanffy regression, channel catfish in the EFWR grew at similar rates (K = 0.165) to channel catfish in the non-commercial reach of the Wabash River (K = 0.167; Colombo et al.). Annual mortality of channel catfish in the EFWR was estimated to be 34% (+7%), which was similar to estimates from the Wabash River. Based on natural mortality estimates from the Wabash River (25%), exploitation of channel catfish in the EFWR would be between 2 and 16%. Data were entered into Fishery Analyses and Simulation Tools software and Beverton-Holt yield-per-recruit models were constructed. At the current minimum size limit of 10 in, natural mortality of 25%, and

exploitation up to 16%, channel catfish were not experiencing growth overfishing (Figure 3). If exploitation increased to 25% or greater, growth overfishing would occur.

Flathead catfish was the next most abundant species in the Ictaluridae family. Flathead catfish ranged from 4.0 to 33.1 in TL, accounting for 3% of the total sample. The majority of the flathead catfish were between 6 and 16 in TL (Figure 2). Sample sizes were too small to analyze growth beyond age 5. Flathead catfish in the EFWR (K = 0.176; Table 4) grew slower than in the Wabash River (K = 0.303).

Other members of the Ictaluridae family were the freckled madtom, brindled madtom, and the mountain madtom. These were collected in low numbers at very few sampling reaches.

Perch family (Percidae)

The Percidae family comprised 13 species, accounting for less than 2% of the total sample by weight and number. There were 11 darter species collected and the other two species were walleye and sauger. One spotted darter, a species of special concern in Indiana, was collected at RM 75.4. Only one walleye was collected that was 23.0 in TL. Sauger ranged from 11.5 to 19.8 in TL and were collected at 13 of the 19 sampling stations.

Drum family (Sciaenidae)

Freshwater drum was the only species collected from this family. Freshwater drum ranged from 7.3 to 24.9 in TL (Figure 2) and they accounted for less than 2% of the total sample by number and almost 10% of the total sample by weight. Freshwater drum were collected at 17 of 19 sampling reaches. Growth was nearly linear up to age 8, which may be a result of underestimating age with scales above age 5. Freshwater drum reached 15 in TL by age 4 and 19 in TL by age 6. Annual mortality was estimated to be 48% (± 6%) and based on an estimate of natural mortality between 22 and 34%, exploitation would have been between 14 and 26%. At 26% exploitation, freshwater drum may be experiencing growth overfishing with no minimum size limit (Figure 4). Increasing the size limit to 14 in TL would not increase yield substantially, but would protect more fish and increase mean harvested size.

Silverside family (Atherinidae)

The only representative of this family was the brook silverside. Brook silverside ranged from 1.1 to 3.1 in TL and were collected at 12 of 19 sampling reaches.

Gar family (Lepisosteidae)

The Lepisosteidae family comprised three species and accounted for less than 1% of the total sample by number and nearly 4% by weight. Shortnose gar was the most abundant gar species, followed by longnose gar and spotted gar. Longnose gar ranged from 15.8 to 43.0 in TL. Shortnose gar up to 24.2 in TL were collected. Gar were collected at about half of the sampling reaches.

Mooneye family (Hiodontidae)

Two members of the Hiodontidae family were collected, which represented less than 1% of the total sample in both number and weight. Goldeye up to 17.8 in TL and mooneye up to 11.6 in TL were collected. Both species were all collected in the lower portion of the river, from RM 1.0 to 54.7.

Killifish family (Fundulidae)

Northern studfish and blackstripe topminnow were the only members collected from the Fundulidae family. Northern studfish were only collected at one sampling reach, which was the upper most site (RM 189.1). Blackstripe topminnow were collected at 5 of 19 sampling reaches.

Lamprey family (Petromyzontidae)

The Petromyzontidae family comprised two species. The chestnut lamprey was collected at 7 of 19 sampling reaches and the silver lamprey was only collected at two sampling reaches.

Temperate bass family (Percichthyidae)

The only species of this family collected was white bass. White bass ranged from 4.3 to 13.1 in TL. White bass were only collected at two sampling reaches.

Pike family (Esocidae)

The only species of this family collected was the grass pickerel. The grass pickerel was collected at three sampling reaches.

Sculpin family (Cottidae)

Only one individual mottled sculpin was collected and it was from the upper-most sampling reach.

Sturgeon family (Acipenseridae)

Only one individual shovelnose sturgeon was collected in the lower river at RM 26.1.

DISCUSSION

Surprisingly, there was no relation between IBI and QHEI scores if all stations were included in the analysis. There was, however, a relationship between QHEI and IBI scores only when stations above Williams Dam that had drainage areas less than 4,000 mi² were included. There are most likely problems with one or both methods when they are applied to large rivers, because both the QHEI and the IBI were originally developed for smaller rivers and streams. One would assume that higher habitat scores across a broad region would relate to higher scores of biotic integrity if the two indices were calibrated correctly, but the data from this survey does not support that assumption.

Despite low QHEI and IBI scores, the EFWR fish community represents a highly diverse fish community that was comprised of at least 86 species, including one state endangered species (lake sturgeon) and one state species of special concern (spotted darter). Lake sturgeon were not collected in this survey; however, they are currently monitored with radio telemetry below Williams Dam by IDNR personnel. The majority of the fish species collected in this survey were collected via electrofishing, but seining added an additional 17 species. Sportfish composition by number in this study (9%) was less than a study on the Wabash River in 1999 (17%). However, sportfish composition by weight (18%) was slightly greater in this study than the Wabash River (13%). Common carp composed a large proportion (44%) of the total catch by weight from the Wabash, but only composed 10% of the catch by weight in this survey. Gizzard shad were prevalent in both surveys, accounting for greater than 13% by number. There

was only one species (American eel) that was collected in a previous survey of the EFWR (Andrews 1992) that was not collected in the current study, but this species is rarely collected with standard methods and would not be expected to show up in all samples.

There were at least 16 public access sites within the study area, which is approximately one site per 11 river miles. In general, biologists felt that ramp conditions were good and there were no suggestions for new access sites. Currently, there were no access sites recommended for acquisition on the EFWR.

Most sport species, like largemouth bass and other sunfish species were captured in low numbers relative to nongame fish species, which was expected. Channel catfish and drum, however, were greater in relative abundance and these species seemed to be the most caught and preferred fish species by anglers in the EFWR. Preliminary data from a statewide angler survey shows that channel catfish are ranked sixth in preference. When you add up the preferences for all catfish, they are more likely to be within the top three preferred fish species in the state. Thus, proper management of channel catfish and other catfish species in rivers is imperative.

At the current estimates of annual mortality, natural mortality, and exploitation, growth overfishing was not occurring for channel catfish. If, however, exploitation increased from about 16% to 25%, growth overfishing would be occurring at the current minimum size limit of 10 in. This is dangerously close to reaching maximum sustainable yield with the possibility of overharvesting channel catfish. If the minimum size limit were increased to 14 in, at 26% exploitation, yield would increase by approximately 10%. Mean TL of harvested fish would increase by 20% or from 13.9 to 16.7 in TL if a 14 in minimum size limit were established. The current minimum size limit does not protect sexually mature fish. Female channel catfish do not reach sexual maturity until age 3 (Colombo et al. 2005) and fish in the EFWR reached 10 in by age 2. According to creel data from 2003 (Hoffman 2004), a 14-in minimum size limit would protect about 25% of the harvested channel catfish. If a 14-in minimum size limit was established, growth overfishing would be highly unlikely with the current population parameters. It would be interesting to further investigate channel catfish populations in the EFWR and compare differences between growth and mortality of fish in the commercial fishing reaches and the non-commercial fishing reaches, as did Colombo et al. (2005) on the Wabash River.

Freshwater drum populations also require proper management, because freshwater drum are a large proportion of angler catches in the EFWR. According to a creel survey of the EFWR

in 2003, freshwater drum ranked second in catch and harvest next to channel catfish (Hoffman 2004). Freshwater drum growth was nearly linear up to age 8, but this was probably due to error in estimating age of fish using scales above age 3. At the current rates of annual mortality and natural mortality, exploitation of freshwater drum was probably between 14 and 26%. At these levels of mortality, freshwater drum may be experiencing growth overfishing with no minimum size limit. There would be no increase in yield if a 14 in TL minimum size limit were established, but mean length of harvested fish would increase and more fish would be protected to maturity. Mean length of harvested freshwater drum was 11.4 in TL (± 0.14 in) in 2003 (Hoffman 2004). Anglers started harvesting freshwater drum at 6 in TL. More data on freshwater drum will be collected in future surveys, which will add to the current information.

RECOMMENDATIONS

• According to data from this report and data from the Wabash River regarding channel catfish, the current 10 in TL minimum size limit does not protect mature fish because channel catfish reach 10 in TL by age 2 and female channel catfish do not reach sexual maturity until age 3. It is recommended to form a work group to review catfish size limits for the state.

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Table 1. Station location, drainage area, flow, gradient, sample distance, average width, average and maximum depth, East Fork White River, September 2003.

River mile	County	Nearest town	Drainage area (mi²)	Gradient (ft/mi)	Sample distance (ft)	Average width (ft)	Average depth (in)	Maximum depth (in)
1.0	Davies/Pike	Petersburg	5,725	0.54	3,070	363.0	73.2	156.0
17.1	Davies/Dubois	Waco	5,619	0.86	3,861	307.0	69.6	120.0
26.1	Martin/Dubois	Haysville	5,581	0.86	5,082	286.0	102.0	159.6
40.9	Martin	Loogootee	5,124	0.83	5,019	277.0	64.8	139.2
42.1	Martin	Loogootee	5,118	0.75	4,064	298.0	99.6	122.4
54.7	Martin	Shoals	5,001	0.75	5,166	258.0	76.3	120.0
75.1	Lawrence	Williams	4,720	1.23	4,197	234.0	90.1	132.0
85.1	Lawrence	Williams	4,047	0.55	4,470	327.6	164.0	204.0
94.3	Lawrence	Bedford	4,047	0.55	3,870	302.4	69.5	99.0
106.4	Lawrence	Lawrenceport	3,861	0.55	4,782	236.4	63.5	95.0
119.6	Jackson/Washington	Fort Ritner	3,801	1.14	2,218	230.0	52.8	123.6
129.7	Jackson/Washington	Millport	3,717	1.43	2,587	192.0	62.4	151.2
136.9	Jackson	Medora	2,560	1.15	2,270	167.0	70.8	180.0
146.2	Jackson	Brownstown	2,516	1.32	2,746	198.0	48.0	82.8
154.5	Jackson	Brownstown	2,367	2.11	1,875	199.0	53.0	132.0
162.2	Jackson	Seymour	2,341	1.69	3,106	185.0	80.0	192.0
166.6	Jackson	Rockford	2,339	1.69	2,486	280.0	111.0	276.0
177.6	Bartholomew	Azalia	2,053	1.90	2,326	210.0	56.0	132.0
189.1	Bartholomew	Columbus	1,708	2.30	2,726	207.0	48.0	144.0

Table 2. Station water chemistry information, East Fork White River, September 2003.

River mile	Secchi disk (in)	Air temperature (°F)	Water temperature (°F)	Dissolved oxygen (ppm)	Conductivity (µS)
1.0	22	65	67	10.8	552
17.1	15	71	69	8.5	576
26.1	20	63	69	9.1	552
40.9	18	64	72	8.8	566
42.1	18	64	72	8.8	566
54.7	14	76	74	8.2	540
75.1	15	68	69	8.9	600
85.1	14	77	70	9.2	560
94.3	30	77	66	7.8	600
106.4	24	77	68	7.4	560
119.6	22	78	67	NA	560
129.7	12	80	72	4.1	320
136.9	22	77	70	9.7	550
146.2	30	75	70	12.0	560
154.5	56	63	64	8.8	450
162.2	53	59	65	8.6	470
166.6	44	80	67	8.3	480
177.6	58	69	67	8.2	480
189.1	59	67	66	8.5	400

Table 3. Station Qualitative Habitat Evaluation Index (QHEI) metric component scores, East Fork White River, September 2003.

River mile	Substrate Max. 20	Cover Max. 20	Channel Max. 20	Riparian Max. 10	Pool Max. 12	Riffle Max. 8	Gradient Max. 10	Total 100	Percent Pool	Percent Run	Percent Riffle
1.0	13	11	12	7.1	0	0	6	49.1	0	100	0
17.1	20	12	13	5	9	4.5	8	71.5	10	80	10
26.1	20	11	13	4	8	7	8	71	15	70	15
40.9	13.75	17	16	9.3	9	7	8	80.05	30	60	10
42.1	3	10	11	8.5	0	0	8	40.5	0	100	0
54.7	19	14	13	8	11	6	8	79	30	50	20
75.1	20	13	15	6	12	8	10	84	40	30	30
85.1	3	13	11	6	9	0	8	50	100	0	0
94.3	14	12	10	7.5	10	0	8	61.5	10	90	0
106.4	15	11	13	6.5	12	6.5	8	72	40	40	20
119.6	12	12	12	3.5	9	0	10	58.5	10	90	0
129.7	13	12	12	7	9	0	10	63	10	90	0
136.9	14	13	12	5	10	0	10	64	20	80	0
146.2	13	12	12	6	10	0	10	63	20	80	0
154.5	13	13	13	9	12	7	10	77	30	69	1
162.2	12	13	13	6.25	10	0	10	64.25	40	60	0
166.6	12	12	13	8	10	0	10	65	80	20	0
177.6	12	13	11	5.5	10	0	10	61.5	40	60	0
189.1	13	13	11	6	11	0	10	64	25	75	0

Table 4. Number, mean length at age, and standard error determined from age-length keys for selected species in fall 2003, East Fork White River.

							A	Age					
Common name	Statistic		2	3	4	\$	9	7	∞	6	10	11	12
Channel catfish	Mean SE N	7.6 0.45 6	10.8 0.31 14	12.7 0.30	15.5 0.26 24	16.8 0.29 26	19.2 0.44 15	18.6 0.44 11	20.2 0.59 13	22.4 0.69 13	23.6 NA	27.1 0.50 2	22.4 1.89 2
Flathead catfish	Mean SE N	8.0 0.31 4	10.9 0.28 20	12.5 0.52 5	15.7 0.71 8	16.4 0.53 5	23.6 1.0 2	NA NA 0	17.9 1.33 2	18.8 1.29 2	27.6 NA 1		
Freshwater drum	Mean SE N	8.1 0.16 29	11.7 0.20 38	12.8 0.12 74	15.3 0.26 34	16.5 0.36 13	19.2 0.37 17	20.9 0.42	23.6				
Sauger	Mean SE N	11.8 0.20 5	14.6 0.58 4	15.2 0.21 6	17.7 0.35 11	18.8 0.37 5							
Smallmouth bass	Mean SE N	4.1 0.25 44	8.6 0.32 17	12.6 0.00 3	13.6 NA	N N O	16.6 1.00 2	18.6 NA					
Spotted bass	Mean SE N	6.6 0.07 243	9.0 0.07	10.0 0.09	10.7 0.09	12.1 0.12 24	13.1 0.19	14.3 0.25 4					

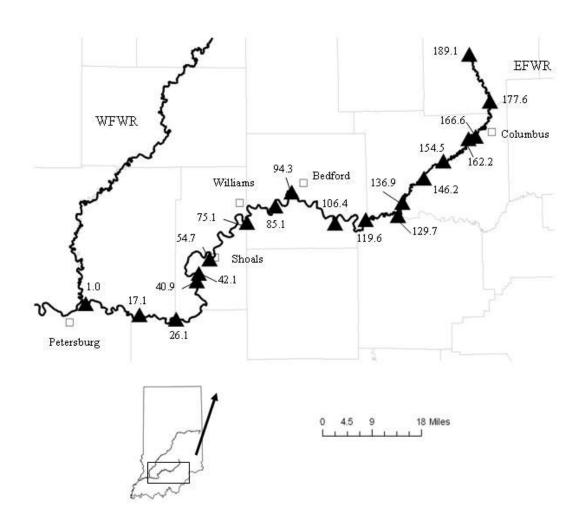


Figure 1. Sampling sites on the East Fork White River, 2003.

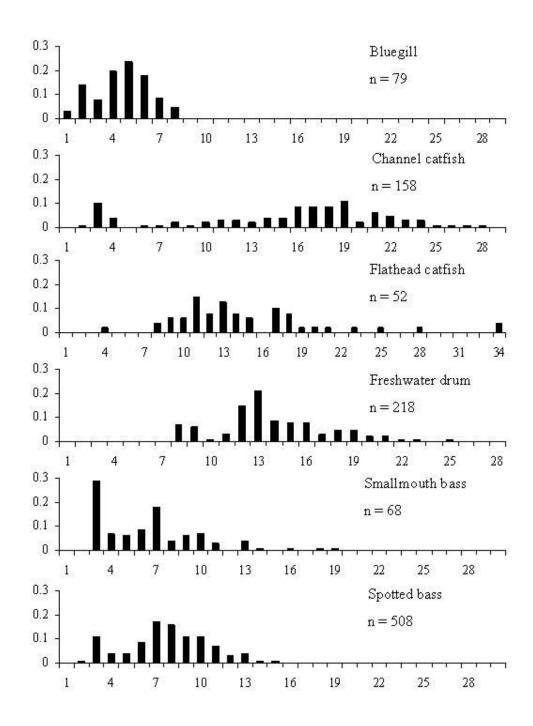


Figure 2. Length-frequency distribution of bluegill, channel catfish, flathead catfish, freshwater drum, smallmouth bass, and spotted bass collected in the East Fork White River, 2003.

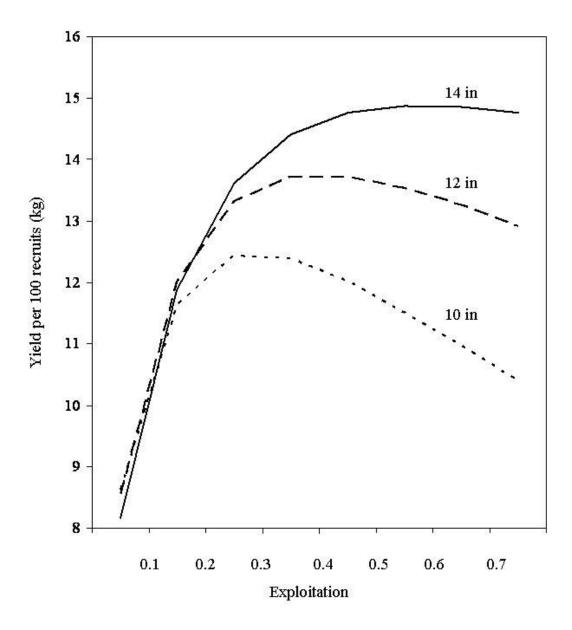


Figure 3. Yield per recruit modeled for channel catfish at different size limits across a range of exploitation rates and a conditional natural mortality rate of 25%, East Fork White River. The current minimum size limit is 10 in TL.

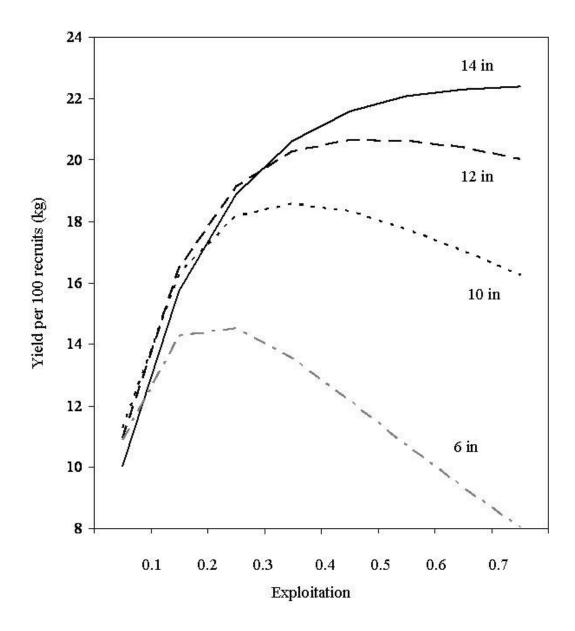


Figure 4. Yield per recruit modeled for freshwater drum at different size limits across a range of exploitation rates and a conditional natural mortality rate of 25%, East Fork White River. A 6 in minimum size limit represents the minimum size when anglers began harvesting freshwater drum.

APPENDIX A

LIST OF ACCESS SITES ON THE EFWR BY COUNTY

Bartholomew

Azalia Bridge, 1.5 miles N of Jonesville on SR 11, then 1.1 miles on CR 800S Columbus, Water St.

Davies

Glendale FWA

Portersville Bridge, 0.4 mile north of Portersville on CR 1100E

Jackson

Bell Ford, 3 miles W of Seymour on SR 258 Brownstown PFA, 0.4 miles W of Brownstown on US 50 Medora, 1 mile E of Medora on SR 235 Rockford, 3 miles W of Rockford on CR 725N Sparksville, 0.5 mile E of Sparksville on Sparksville Pike

Lawrence

Bedford 2.5 miles south of Bedford, on SR 37 Lawrenceport, 0.1 mile E of Spring Mill State Park on SR 60, then 3.7 miles N on CR500E Williams Dam, below Williams Dam off SF 450 Spice Valley, above Williams Dam

Martin

Hindostan Falls, five miles east of Loogootee off SR 550 to Hindostan Falls Public Fishing Area

Shoals, north of US 50 in Shoals

Washington

White-Muscatatuck, 5 miles W of Milport on Wheeler Hollow Rd.

APPENDIX B

NAME, NUMBER, PERCENTAGE, SIZE, WEIGHT, AND OCCURRENCE INDEX OF FISHES COLLECTED, EAST FORK WHITE RIVER, SEPTEMBER 2003

Appendix B. Name, number, percentage, size, weight, and occurrence index of fishes collected, East Fork White River, September 2003 (all gears combined).

						Total		
Common name	Scientific name	Total number	% by number	Min.	Max.	weight (lb)	% by weight	Occurrence index
Spotfin shiner	Cyprinella spiloptera	2,315	15.7	0.4	3.5	3.99	0.1	19
Gizzard shad	Dorosoma cepedianum	1,957	13.7	1.1	13.8	390.67	11.4	19
Bullhead minnow	Pimephales vigilax	1,714	11.6	0.7	3.0	6.11	0.2	13
Bigeye chub	Notropis amblops	1,358	9.2	1.1	3.1	3.86	0.1	8
Steelcolor shiner	Cyprinella whipplei	1,059	7.2	0.8	4.1	3.39	0.1	19
MS silvery minnow	Hybognathus nuchalis	931	6.3	0.8	4.0	5.13	0.1	12
Sand shiner	Notropis stramineus	927	6.3	1.0	2.5	2.05	0.1	12
Bluntnose minnow	Pimephales notatus	595	4.0	0.6	3.1	1.38	*	17
Spotted bass	Micropterus punctulatus	543	3.7	1.6	14.7	142.07	4.1	19
Western mosquitofish	Gambusia affinis	532	3.6	0.6	1.9	0.41	*	10
Channel catfish	Ictalurus punctatus	246	1.7	1.2	27.5	258.16	7.5	18
Freshwater drum	Aplodinotus grunniens	218	1.5	7.3	24.9	337.77	9.9	17
Emerald shiner	Notropis atherinoides	206	1.4	0.7	4.3	1.83	0.1	12
Golden redhorse	Moxostoma erythrurum	189	1.3	2.0	17.8	111.2	3.2	14
Longear sunfish	Lepomis megalotis	155	1.1	0.6	6.7	9.27	0.3	15
River carpsucker	Carpiodes carpio	123	0.8	5.8	19.5	214.11	6.2	18
Smallmouth buffalo	Ictiobus bubalus	121	0.8	0.9	29.6	521.89	15.2	17
Bluegill	Lepomis macrochirus	120	0.8	0.6	7.8	6.62	0.2	17
Brook silverside	Labidesthes siculus	117	0.8	1.1	3.1	0.29	*	12
Rosyface shiner	Notropis rubellus	98	0.7	1.5	2.4	0.18	*	5
Smallmouth bass	Micropterus dolomieu	73	0.5	2.2	17.8	19.04	0.6	13
Common carp	Cyprinus carpio	71	0.5	6.0	27.0	351.21	10.3	17
Shorthead redhorse	Moxostoma macrolepidotum	65	0.4	2.8	21.0	56.52	1.6	15
Silver redhorse	Moxostoma anisurum	64	0.4	2.7	24.2	106.04	3.1	14
Eastern sand darter	Ammocrypta pellucida	58	0.4	1.3	2.5	0.17	*	11
Suckermouth minnow	Phenacobius mirabilis	57	0.4	2.0	3.9	0.5	*	5
Flathead catfish	Pylodictis olivaris	52	0.4	4.0	33.1	98.06	2.9	17
Black redhorse	Moxostoma duquesnei	49	0.3	2.3	13.6	14.92	0.4	5
Shortnose gar	Lepisosteus platostomus	46	0.3	16.0	24.2	58.16	1.7	10
Quillback	Carpiodes cyprinus	42	0.3	3.5	18.3	12.93	0.4 *	6
Logperch	Percina caprodes	39	0.3	2.7	6.0	0.97	*	6
Dusky darter	Percina sciera	36	0.2	1.4	4.2	0.41		11
Sauger	Sander canadense	36	0.2	11.5	19.8	43.84	1.3	13
Central stoneroller	Campostoma anomalum	34	0.2 0.2	1.7	3.4	0.17	2.0	6 11
Longnose gar Mimic shiner	Lepisosteus osseus Notropis volucellus	33 30	0.2	15.8 0.8	43.0 2.5	69.48 0.07	2.0 *	6
Northern hog sucker	Hypentelium nigricans	29	0.2	2.7	12.5	1.95	0.1	7
Striped shiner	Luxilus chrysocephalus	28	0.2	1.3	2.5	0.11	V.1 *	6
Blue sucker	Cycleptus elongatus	26	0.2	21.0	27.8	136.83	4.0	7
Johnny darter	Etheostoma nigrum	26	0.2	1.7	2.3	0.07	*	7
Bigmouth buffalo	Ictiobus cyprinellus	23	0.2	15.8	25.2	138.47	4.0	7
Silverjaw minnow	Notropis buccatus	22	0.2	1.0	2.7	0.08	*	5
River redhorse	Moxostoma carinatum	21	0.1	6.1	26.6	102.39	3.0	11
Goldeye	Hiodon alosoides	20	0.1	10.1	17.8	17.76	0.5	6
Slenderhead darter	Percina phoxocephala	18	0.1	2.3	3.4	0.18	*	6
Chestnut lamprey	Ichthyomyzon castaneus	17	0.1	6.8	9.2	0.8	*	7
Ghost shiner	Notropis buchanani	16	0.1	1.6	1.8	0.06	*	5
Mooneye	Hiodon tergisus	16	0.1	5.5	11.6	4.89	0.1	4
Northern studfish	Fundulus catenatus	16	0.1	1.1	3.4	0.11	*	1
Highfin carpsucker	Carpiodes velifer	15	0.1	5.6	13.2	7.17	0.2	8
Black buffalo	Ictiobus niger	13	0.1	21.1	31.6	125.01	3.6	7
Largemouth bass	Micropterus salmoides	12	0.1	2.5	14.5	6.65	0.2	8
Gravel chub	Erimystax x-punctatus	10	0.1	1.2	2.7	0.03	*	2
White bass	Morone chrysops	10	0.1	4.3	13.1	5.97	0.2	2
White crappie	Pomoxis annularis	9	0.1	6.4	11.6	3.15	0.1	4
Greenside darter	Etheostoma blennioides	8	*	1.8	2.8	0.05	*	4
Green sunfish	Lepomis cyanellus	7	*	1.6	4.7	0.13	*	4
Black crappie	Pomoxis nigromaculatus	6	*	4.2	10.6	2.62	0.1	6
Blackstripe								
topminnow	Fundulus notatus	6	*	1.4	2.5	0.03	*	5
Creek chub	Semotilus atromaculatus	6	*	2.0	2.2	0.03	*	2
Redear sunfish	Lepomis microlophus	6	*	2.1	8.1	0.83	*	5

Speckled chub	Macrhybopsis aestivalis	6	*	1.5	2.1	0.02	*	2
Harlequin darter	Etheostoma histrio	5	*	2.0	2.4	0.03	*	4
Silver shiner	Notropis photogenis	5	*	2.7	3.3	0.03	*	2
Skipjack herring	Alosa chrysochloris	5	*	7.0	10.2	1.15	*	5
Mountain madtom	Noturus eleutherus	4	*	1.3	1.5	0.02	*	4
Spotted sucker	Minytrema melanops	4	*	7.3	18.3	4.76	0.1	1
•	Esox americanus							
Grass pickerel	vermiculatus	3	*	5.2	7.3	0.16	*	3
Rainbow darter	Etheostoma caeruleum	3	*	1.8	2.0	0.02	*	2
Brindled madtom	Noturus miurus	2	*	0.9	1.3	0.01	*	1
Freckled madtom	Noturus nocturnus	2	*	2.6	4.5	0.05	*	1
Mud darter	Etheostoma asprigene	2	*	2.8	2.8	0.01	*	2
Silver lamprey	Ichthyomyzon unicuspis	2	*	8.1	8.3	0.11	*	2
Streamline chub	Erimystax dissimilis	2	*	2.8	2.9	0.01	*	1
Warmouth	Lepomis gulosus	2	*	3.2	4.2	0.07	*	1
Grass carp	Ctenopharyngodon idella	1	*	23.7	23.7	5.15	0.2	1
Hybrid sunfish	Lepomis sp. x Lepomis sp.	1	*	4.0	4.0	0.04	*	1
Mottled sculpin	Cottus bairdi	1	*	2.2	2.2	0.01	*	1
Orangespotted sunfish	Lepomis humilis	1	*	1.9	1.9	0.01	*	1
Orangethroat darter	Etheostoma spectabile	1	*	1.6	1.6	**	*	1
Pugnose minnow	Opsopoeodus emiliae	1	*	1.8	1.8	**	*	1
-	Scaphirhynchus							
Shovelnose sturgeon	platorynchus	1	*	22.0	22.0	0.93	*	1
Silverband shiner	Notropis shumardi	1	*	1.9	1.9	0.01	*	1
Spotted darter	Etheostoma maculatum	1	*	2.5	2.5	0.01	*	1
Spotted gar	Lepisosteus oculatus	1	*	23.3	23.3	1.45	*	1
Walleye	Sander vitreum	1	*	23.0	23.0	4.08	0.1	1
TOTALS		14,753				3,426.38		

86 SPECIES & 1 HYBRID

^{*=}Less than 0.1% or less than 0.01 lbs.

APPENDIX C.

SPECIES, NUMBER, AND WEIGHT OF FAMILIES COLLECTED FROM THE EAST FORK WHITE RIVER, SEPTEMBER 2003 $\,$

Appendix C. Species, number, and weight of families collected from the East Fork White River, September 2003 (all gear combined).

Fa	amily	Number	Percent	Weight	Percent
Cyprinidae – Carps an	nd Minnows	9,493	64.3	385.40	11.2
		9,493	04.3	383.40	11.2
Spotfin shiner	Mimic shiner				
Bullhead minnow	Striped shiner				
Bigeye chub	Silverjaw minnow				
Steelcolor shiner Mississippi silvery	Ghost shiner				
minnow	Gravel chub				
Sand shiner	Creek chub				
Bluntnose minnow	Speckled chub				
Emerald shiner	Silver shiner				
Rosyface shiner	Streamline chub				
Common carp	Grass carp				
Suckermouth minnow	Pugnose minnow				
Central stoneroller	Silverband shiner				
Spotfin shiner	Mimic shiner				
Clupeidae - Herrings		1,962	13.3	391.82	11.4
Gizzard shad	Skipjack herring				
Centrarchidae - Sunfis	<u>shes</u>	935	6.3	190.50	5.6
Spotted bass	Green sunfish				
Longear sunfish	Black crappie				
Bluegill	Redear sunfish				
Smallmouth bass	Warmouth				
Largemouth bass	Hybrid sunfish				
White crappie	Orangespotted sunfish				
Catostomidae - Sucke	<u>rs</u>	784	5.3	1,554.19	45.4
Golden redhorse	Northern hog sucker				
River carpsucker	Blue sucker				
Smallmouth buffalo	Bigmouth buffalo				
Shorthead redhorse	River redhorse				
Silver redhorse	Highfin carpsucker				

Black redhorse	Black buffalo				
Quillback	Spotted sucker				
Poecillidae - Livebeare Western mosquitofish	<u>rs</u>	532	3.6	0.41	*
Ictaluridae – Bullhead	<u>Catfish</u>	306	2.1	356.30	10.4
Channel catfish	Brindled madtom				
Flathead catfish	Freckled madtom				
Mountain madtom					
Percidae - Perches		234	1.6	49.84	1.5
Eastern sand darter	Harlequin darter				
Logperch	Rainbow darter				
Dusky darter	Mud darter				
Sauger	Orangethroat darter				
Johnny darter	Spotted darter				
Slenderhead darter	Walleye				
Greenside darter					
Sciaenidae - Drums		218	1.5	337.77	9.9
Freshwater drum					
Atherinidae - Silverside	<u>es</u>	117	0.8	0.29	*
Brook silverside					
<u>Lepisosteidae - Gars</u>		80	0.5	129.09	3.8
Shortnose gar	Spotted gar				
Longnose gar					
Hiodontidae - Mooneye	es	36	0.2	22.65	0.7
Goldeye	Mooneye				
Fundulidae - Killifishes	<u>s</u> Blackstripe	22	0.1	0.14	*
Northern studfish	topminnow				
Petromyzontidae - Lam	<u>ipreys</u>	19	0.1	0.91	*
Chestnut lamprey	Silver lamprey				

<u>Percichthyidae – Temperate bass</u>	10	0.1	5.97	0.2
White bass				
Esocidae - Pikes	3	*	0.16	*
Grass pickerel				
Cottidae - Sculpins	1	*	0.01	*
Mottled sculpin				
Acipenseridae - Sturgeon	1	*	0.93	*
Shovelnose sturgeon				
TOTALS	14,753		3,426.38	

86 SPECIES & 1 HYBRID * = less than 0.1%.

APPENDIX D

SPECIES COLLECTED BELOW AND ABOVE WILLIAMS DAM ON THE EAST FORK WHITE RIVER

Appendix D. Species collected below and above Williams Dam on the East Fork White River, Indiana, 2003.

Common name	Scientific name	Below	Above	Common name	Scientific name	Below	Above
Bigeye chub	Notropis amblops	No	Yes	Brook silverside	Labidesthes siculus	Yes	Yes
Brindled madtom	Noturus miurus	No	Yes	Bullhead minnow	Pimephales vigilax	Yes	Yes
Central stoneroller	Campostoma anomalum	No	Yes	Channel catfish	Ictalurus punctatus	Yes	Yes
Creek chub	Semotilus atromaculatus	No	Yes	Chestnut lamprey	Ichthyomyzon castaneus	Yes	Yes
Freckled madtom	Noturus nocturnus	No	Yes	Common carp	Cyprinus carpio	Yes	Yes
Gravel chub	Erimystax x-punctatus	No	Yes	Dusky darter	Percina sciera	Yes	Yes
Green sunfish	Lepomis cyanellus	No	Yes	Eastern sand darter	Ammocrypta pellucida	Yes	Yes
Greenside darter	Etheostoma blennioides	No	Yes	Emerald shiner	Notropis atherinoides	Yes	Yes
Hybrid sunfish	Lepomis sp. x Lepomis sp.	No	Yes	Flathead catfish	Pylodictis olivaris	Yes	Yes
Mottled sculpin	Cottus bairdi	No	Yes	Freshwater drum	Aplodinotus grunniens	Yes	Yes
Mountain madtom	Noturus eleutherus	No	Yes	Ghost shiner	Notropis buchanani	Yes	Yes
Mud darter	Etheostoma asprigene	No	Yes	Gizzard shad	Dorosoma cepedianum	Yes	Yes
Northern studfish	Fundulus catenatus	No	Yes	Golden redhorse	Moxostoma erythrurum	Yes	Yes
Orangethroat darter	Etheostoma spectabile	No	Yes	Grass pickerel	Esox americanus	Yes	Yes
Pugnose minnow	Opsopoeodus emiliae	No	Yes	Harlequin darter	Etheostoma histrio	Yes	Yes
Rainbow darter	Etheostoma caeruleum	No	Yes	Highfin carpsucker	Carpiodes velifer	Yes	Yes
Rosyface shiner	Notropis rubellus	No	Yes	Johnny darter	Etheostoma nigrum	Yes	Yes
Silver shiner	Notropis photogenis	No	Yes	Largemouth bass	Micropterus salmoides	Yes	Yes
Spotted sucker	Minytrema melanops	No	Yes	Logperch	Percina caprodes	Yes	Yes
Streamline chub	Erimystax dissimilis	No	Yes	Longear sunfish	Lepomis megalotis	Yes	Yes
Striped shiner	Luxilus chrysocephalus	No	Yes	Longnose gar	Lepisosteus osseus	Yes	Yes
Suckermouth minnow	Phenacobius mirabilis	No	Yes	Mimic shiner	Notropis volucellus	Yes	Yes
Goldeye	Hiodon alosoides	Yes	No	MS silvery minnow	Hybognathus nuchalis	Yes	Yes
Grass carp	Ctenopharyngodon idella	Yes	No	Northern hog sucker	Hypentelium nigricans	Yes	Yes
Mooneye	Hiodon tergisus	Yes	No	Quillback	Carpiodes cyprinus	Yes	Yes
Orangespotted sunfish	Lepomis humilis	Yes	No	Redear sunfish	Lepomis microlophus	Yes	Yes
Shovelnose sturgeon	Scaphirhynchus platorynchus	Yes	No	River carpsucker	Carpiodes carpio	Yes	Yes
Silver lamprey	Ichthyomyzon unicuspis	Yes	No	River redhorse	Moxostoma carinatum	Yes	Yes
Silverband shiner	Notropis shumardi	Yes	No	Sand shiner	Notropis stramineus	Yes	Yes
Skipjack herring	Alosa chrysochloris	Yes	No	Sauger	Sander canadense	Yes	Yes
Spotted darter	Etheostoma maculatum	Yes	No	Shorthead redhorse	Moxostoma macrolepidotum	Yes	Yes
Spotted gar	Lepisosteus oculatus	Yes	No	Shortnose gar	Lepisosteus platostomus	Yes	Yes
Walleye	Sander vitreum	Yes	No	Silver redhorse	Moxostoma anisurum	Yes	Yes
Warmouth	Lepomis gulosus	Yes	No	Silverjaw minnow	Notropis buccatus	Yes	Yes
White bass	Morone chrysops	Yes	No	Slenderhead darter	Percina phoxocephala	Yes	Yes
Bigmouth buffalo	Ictiobus cyprinellus	Yes	Yes	Smallmouth bass	Micropterus dolomieu	Yes	Yes
Black buffalo	Ictiobus niger	Yes	Yes	Smallmouth buffalo	Ictiobus bubalus	Yes	Yes
Black crappie	Pomoxis nigromaculatus	Yes	Yes	Speckled chub	Macrhybopsis aestivalis	Yes	Yes
Black redhorse	Moxostoma duquesnei	Yes	Yes	Spotfin shiner	Cyprinella spiloptera	Yes	Yes
Blackstripe topminnow	Fundulus notatus	Yes	Yes	Spotted bass	Micropterus punctulatus	Yes	Yes
Blue sucker	Cycleptus elongatus	Yes	Yes	Steelcolor shiner	Cyprinella whipplei	Yes	Yes
Bluegill	Lepomis macrochirus	Yes	Yes	Western mosquitofish	Gambusia affinis	Yes	Yes
Bluntnose minnow	Pimephales notatus	Yes	Yes	White crappie	Pomoxis annularis	Yes	Yes
	·r			· · · · · · · · · · · · · · · · · · ·			

APPENDIX E

STREAM HABITAT EVALUATION FORMS FOR ALL SITES

INDIANA DIVISION OF FISH AND WILDLIFE STREAM HABITAT EVALUATION FORM

STREAM: E	FWR				RIVER MILE: 1.00					
NEAREST TO	wn: Peters	burg	COUNTY: Daviess/Pike							
QUADRANGL	QUADRANGLE: Sandy Hook				1N	RI	NG: <u>7W</u>	1	SEC:	6
LATITUDE: upstream 38° 32.59 N, 87° 13.87 W LONGITUDE: middle 38° 32.39 N, 87° 13.47 W									W	
LATITUDE: downstream 38° 32.59 N, 87° 13.87 W LONGITUDE:										
U.S.G.S. GUAGING STATION LOCATION: Shoals AVG. DISCHARGE (cfs): 5,72									5,725	
IS REACH RE	PRESENTATI	VE OF STREA	M (Y/N)	Yes	IF NOT, WHY?					
DESCRIPTION	ON OF SAMPL	E SITE (Acces	s, length, dir	ection sampled):	Station started	d at SR	57 bridge and	went o	downstre	am
3,070 ft.										
				COLLECTIO	ON CHIMMADY	,				
		0.10.4.10.000			ON SUMMARY				41 (0	
				GEAR:	Boat E	F / Sein	ie EFF	ORT:	1hr /2	hauls
		avanage, Ko							NI	
OTHER GEAR/EFFORT:										
CANOPY (%OPEN): 98				·	<u> </u>			_		
AIR TEMP (F): 65.3										
CONDUCTIVITY: 552 μS					8.5			NITY:	171	ppm
STREAM MEASUREMENTS AVG. WIDTH:					-	·				
STATION LENGTH: (1st date)				,070 ft	(2nd	d date)				
WIDTH (ft)		DEPTH (ft)								
383.9	4.7	5.1	4.1		_			_		
357.6	5.5	6.9	6.0			6	4			
292	6.1	8.0	9.0		SUB	JECTIVE	AESTHI	ETIC		
383.9	7.3	6.0	4.4			ATING	RATIN			
393.7	3.6	2.5	13.0		((1-10)	(1-10	0)		
370.7	6.7	8.0	4.0							
ADDITIONAL (COMMENTS/PC	DLLUTION IMPA	CTS: <u>La</u>	aunched boat	at Petersburg	site.				
Ramp in go	od conditio	n.								

INDIANA DIVISION OF FISH AND WILDLIFE STREAM HABITAT EVALUATION FORM

STREAM: EFWR							RIVER MILE: 17.11				
NEAREST TOWN: Waco COUNTY: Daviess/Dubois											
QUADRANGL	E:	Glendal	е	TWP:	1N	RNG:	6W	SEC:	13,14		
LATITUDE:	upstream 3	8° 30.73 N,	87° 02.3	33 W	LONGITUD	E: middle	38° 30.67 N,	87° 02.6	2 W		
LATITUDE: downstream 38° 30.48 N, 87° 03.04 W LONGITUDE:											
U.S.G.S. GUA	GING STATIO	ON LOCATION	l:	S	Shoals			AVG. DISCHARGE (cfs): 5,6			
IS REACH REPRESENTATIVE OF STREAM (Y/N) Yes IF NOT, WHY?											
DESCRIPTION	N OF SAMPLE	E SITE (Access	s, length, di	rection sampled):	Flatrock ramp de	ownstrear	n 3,861 ft.				
COLLECTION SUMMARY											
DATE:	!	9/22/2003		GEAR:	Boat EF/Se	ine hauls	EFFORT	T: <u>1 hr/</u>	4 hauls		
CREW: Carr	nahan, Abre	l, Kowalik									
OTHER GEAF	R/EFFORT:						WATER STAGE	: Litt	e high		
CANOPY (%OPEN): 99%				PHOTOS (Y/N): No SEC		SEC	CHI DISK (inches):	15		
AIR TEMP (F): 71.2				WATER TEMP (F):	68.9	68.9):	8.46		
CONDUCTIVITY: 576 µS			μS	pH:	pH: 8.5		ALKALINITY:	17	171 ppm		
TDS:											
STREAM MEASUREMENTS AVG. WIDTH:				307 ft	AVG. DEPTH:	69.6	3 inMA	X DEPTH:	120 in		
STATION LENGTH: (1st date) 3861 ft (2nd date)											
MIDTH (6)		DEDTH (6)									
WIDTH (ft)	0.0	DEPTH (ft)	4.5	7							
			4.5	-	Г	J					
337.9	5.0	3.5	2.1	-		<u> </u>	5				
328.1	3.8	3.4	6.0	-	SUBJE RAT		AESTHETIC RATING				
308.4	5.8	8.1	10.0	\dashv	(1-		(1-10)				
295.3	8.0	6.8	8.5	\dashv							
272.3	8.0	6.7	1.4	_							
ADDITIONAL COMMENTS/POLLUTION IMPACTS: Ramp in good condition.											

STREAM: EI	-WK		RIVER MILE:	26.14					
NEAREST TO	wn: Haysv	ille			(COUNTY: N	lartin/Dubois		
QUADRANGL	.E:	Jasper		TWP:	1N	RNG:	5W	SEC:	24,25
LATITUDE:	upstream 3	88° 29.76 N,	86° 54.8	2 W	LONGITU	IDE: middle	e 38° 29.89 N, 8	86° 55.25	W
LATITUDE:	downstrear	m 38° 29.77	N, 86° 5	5.36 W	LONGITU	IDE:			
U.S.G.S. GUA	GING STATIO	ON LOCATION	l:	S	Shoals		AVG. DISCHAR	GE (cfs):	5,581
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	Yes	IF NOT, WHY?				
DESCRIPTIO	N OF SAMPLE	E SITE (Access	s, length, dir	rection sampled):	Started at 231	Bridge - s	ampled downsti	ream 5,08	32 feet
				COLLECTIO	ON SUMMARY				
DATE:	!	9/23/2003		GEAR:	Boat EF	7 / Seine	EFFORT	: <u>1Hr EF</u>	/ 4 Hauls
CREW: Carr	nahan, Kow	alik, Stefana	avage						
OTHER GEAR/EFFORT: WATER STAGE: Normal									
CANOPY (%C	OPEN):	99		PHOTOS (Y/N):	N	N SEC		:	20
AIR TEMP (F)	:	62.6		WATER TEMP (F):	69).1	D.O. (ppm)	:	9.1
CONDUCTIVI	TY:	552	μS	pH:	8.5		ALKALINITY:	171	ppm
TDS:									
STREAM MEA	ASUREMENTS	S AVG. WIE	OTH:	286 ft	AVG. DEPTH:	10	2 in MAX	X DEPTH:_	159.6 in
STATION LE	NGTH: (1st da	te)	5,	,082 ft	(2nd	date)			
WIDTH (ft)		DEPTH (ft)							
278.9		5.6							
255.9	3.1	4.1	7.2		Γ	5	5		
288.7	4.0	2.5	3.5		SUBJ	IECTIVE	AESTHETIC		
298.6	1.9	4.2	4.9		RA	TING	RATING		
288.7	4.4	3.4	3.2		(1	I-10)	(1-10)		
308.4	9.5	10.8	13.3						
ADDITIONAL (COMMENTS/PO	OLLUTION IMP	ACTS: La	nunched boat	at Portersville ra	amp.			
Ramp in go	od conditio	n.							

STREAM: E	FWR, Down	stream Hind	dostan Fall	ls	RIVER	MILE: 40.	88		
NEAREST TO	WN: Loogo	otee			COUN	TY: <u>Martir</u>	1		
QUADRANGL	.E:	Rusk		TWP:	2N	RNG:	4 W	SEC:	10
LATITUDE:	upstream 3	8° 37.42 N,	86° 51.01	W	LONGITUDE: n	niddle 38	° 37.28 N,80	6° 50.69	W
LATITUDE:	downstrean	n 38° 37.08	N, 86° 50	.63 W	LONGITUDE:				
U.S.G.S. GUA	GING STATIC	N LOCATION	:	S	hoals	AV	G. DISCHARGE	(cfs):	5,124
IS REACH RE	PRESENTATI	IVE OF STREA	AM (Y/N)	Yes	IF NOT, WHY?				
DESCRIPTIO	N OF SAMPLE	SITE (Access	s, length, dire	ction sampled):	Hindostan falls dow	nstream t	o end of stati	ion arou	nd bend
				COLLECTIO	ON SUMMARY				
DATE:	Ç	9/17/2003		GEAR:	EF Boat/Sei	ine	EFFORT:	1 hr/-	4 hauls
CREW: Carr	nahan, Stefa	navage, Ko	walik						
OTHER GEAL	R/EFFORT: No	one				W A	TER STAGE:	No	rm al
CANOPY (%C	DPEN):	98%	P	PHOTOS (Y/N):	No	SECCHI	DISK (inches):		18
AIR TEMP (F):	64.4	w	VATER TEMP (F):	71.6		D.O. (ppm):	8	3.8
CONDUCTIV	TY:	566 լ	uS	pH:	8.3		ALKALINITY: _	171	ppm
TDS:									
STREAM ME	ASUREMENTS	AVG. WID)TH:	277 ft	AVG. DEPTH:	64.8 in	MAX [DEPTH:_	139.2 in
STATION LE	NGTH: (1st dat	e)	5,0)19 ft	(2nd date)				
WIDTH (ft)		DEPTH (ft)							
223.1	4.2	11.3	2.2						
255.9	7.6	11.6	9.0		8		10		
285.4	8.6	5.8	2.0		SUBJECTI	VE	AESTHETIC		
321.5	6.8	3.4	1.0		RATING		RATING		
419.9	3.3	3.0	1.0		(1-10)		(1-10)		
160.8	5.7	5.7	5.7						
ADDITIONAL	COMMENTS/PC	OLLUTION IMP	ACTS: Lau	unched at Hir	ndostan Falls downs	tream bo	at ramp.		
Ramp in go	od condition	١.							

STREAM: E	-WR				RIVE	R MILE: 4	12.07		
NEAREST TO	WN: Loogo	otee			COU	INTY: <u>Ma</u>	rtin		
QUADRANGL	.E:	Rusk		TWP:	2N	RNG:	4W	SEC:	9
LATITUDE:	upstream 3	88° 37.21 N,	86° 52.0	4W	LONGITUDE:	middle	38° 37.32 N, 8	36° 51.84	· W
LATITUDE:	downstrear	n 38° 37.39	9 N, 86° 5	51.38 W	LONGITUDE:				
U.S.G.S. GUA	GING STATIO	ON LOCATION	l:	(Shoals		AVG. DISCHARG	SE (cfs):	5,118
IS REACH RE	PRESENTAT	IVE OF STRE	AM (Y/N)	Yes	IF NOT, WHY?				
DESCRIPTIO	N OF SAMPLE	E SITE (Acces	s, length, dir	rection sampled)	: Upstream of Hind	ostan Fa	lls. Station sta	rted right	<u>t</u>
upstream c	f Poplar Cre	eek and end	led upstre	am of Hindos	stan Falls boat ram	р			
				COLLECTION	ON CUMMARY				
					ON SUMMARY				
DATE:		9/16/2003		GEAR:	Boat EF / Seir	ne (50')	EFFORT:	1 HR EF	/ 4 Hauls
		anavage, Ko							
OTHER GEAL	R/EFFORT: N	one					WATER STAGE:	No	rmal
CANOPY (%C	DPEN):	98		PHOTOS (Y/N):	N	SECC	HI DISK (inches):	1	8 in
					71.6				
CONDUCTIV	TY:	566	μS	pH:	8.3		_ ALKALINITY:	171	ppm
TDS:									
STREAM ME	ASUREMENT	S AVG. WIE	OTH:	298 ft	AVG. DEPTH:	99.6	in MAX	DEPTH:	122.4 in
STATION LE	NGTH: (1st da	te)	4,	,064 ft	(2nd date	e)			
WIDTH (ft)		DEPTH (ft)							
334.6	6.4		7.7						
344.5	7.6	6.7	7.8		6		6		
298.6	8.9	8.4	8.4		SUBJECT	TIVE	AESTHETIC		
285.4	10.2	9.4	8.2		RATIN		RATING		
269.0	9.4	9.6	8.7		(1-10))	(1-10)		
262.5	9.0	8.7	8.7						
	<u> </u>	•		ு aunched at un	stream Hindostan	Falls boa	at ramp.		
Ramp in go						200			
. tamp in ge	ou conditio	•••							

STREAM: E	ast Fork Whit	e River				RIVER MILE	: <u>54.7</u>		
NEAREST TO	WN: Shoals					COUNTY: N	/lartin		
QUADRANGL	E:	Shoals	3	TWP:	T3N	RNG:	R4W	SEC:	25
LATITUDE:	38° 39' 32.64	!" N			LONGIT	UDE: <u>86° 48</u>	8' 16.56" W		
LATITUDE:					LONGIT	UDE:			
U.S.G.S. GUA	GING STATION	LOCATION		5	Shoals		AVG. DISCHARGE	E (cfs):	5001
IS REACH RE	PRESENTATIVE	E OF STREA	M (Y/N) _	Y	IF NOT, WHY?				
DESCRIPTION	ON OF SAMPLE	SITE (Acces	s, length, d	irection sampled):	Mouth of Bea	ver Creek	and downstream.		
				COLLECTIO	ON SUMMARY	1			
DATE:	9/	17/2003		GEAR:	DC Elec	ctrofishing	EFFORT:	1	hour
CREW: Sch	oenung, Berg	er, Ort							
OTHER GEAR	R/EFFORT: Sei	ne, 4 haul	S				WATER STAGE:	N	ormal
CANOPY (%C	PEN):	90		PHOTOS (Y/N):	Υ	SE	CCHI DISK (inches):		14
AIR TEMP (F)	:	76°		WATER TEMP (F):		74°	D.O. (ppm):		8.2
CONDUCTIVI	TY:	540	μS	pH:	8.3	3	ALKALINITY:	1	19.7
TDS:				2	270 mg/L				
STREAM MEA	ASUREMENTS	AVG. WIE	OTH:	258 ft.	AVG. DEPTH:	76.3	inches MAX	DEPTH:	120 inches
STATION LEN	IGTH: (1st date)				(2n	d date)			
WIDTH (ft)	1	DEPTH (in)							
228	80	95	40						
261	65	55	40			7	8		
276	80	50	50		SUE	BJECTIVE	AESTHETIC		
246	100	95	80			ATING	RATING		
279	120	95	100			(1-10)	(1-10)		
ADDITIONAL (COMMENTS/POLL	_UTION IMPA	ACTS:						

STREAM: East Fork White River RIVER MILE: 75.08									
NEAREST TO	wn: Willian	ns				COUNTY: L	awrence		
QUADRANGL	E:	William	S	TWP:	T4N	RNG:	R2W	SEC:	18
LATITUDE:	38° 46' 30.4	4" N			LONGITU	JDE: <u>86° 4</u> 0	O' 19.8" W		
LATITUDE:					LONGITU	JDE:			
U.S.G.S. GUA	GING STATIO	ON LOCATION	l:	В	edford		AVG. DISCHARG	E (cfs):	4,720
IS REACH RE	PRESENTAT	IVE OF STRE	AM (Y/N)	Y	IF NOT, WHY?				
DESCRIPTION	N OF SAMPLE	E SITE (Acces	s, length, d	irection sampled):	Riffle at bend i	n river app	oroximately 3.5 m	niles dow	nstream
from Willian	ms Dam, do	wnstream f	rom that	point.					
				00115071	ON OURSE ABY				
					ON SUMMARY				
				GEAR:	DC Elec	trofishing	EFFORT:	1 <u>I</u>	nour
		her, Briggs							
		eine, 4 haul					WATER STAGE:		
						<u>.</u>	CCHI DISK (inches):		
							D.O. (ppm):		
					pH: 8.3 ALKALINITY:				
					800 mg/L				
					_		inches MAX	· <u> </u>	
STATION LEN	NGTH: (1st dat	te)	4,	197 feet	(2nd	date)			
WIDTH (ft)		DEPTH (in)							
234	130	132	43						
234	117	110	50			7	7		
195	75	80	55		SUB	JECTIVE	AESTHETIC		
261	130	115	70		R/	ATING	RATING		
246	75	90	80		(1-10)	(1-10)		
ADDITIONAL (COMMENTS/P	OLLUTION IMP	ACTS:						

STREAM: East Fork White River RIVER MILE: 85.1									
NEAREST TO	wn: Williar	ns			COU	NTY: <u>Lav</u>	vrence		
QUADRANGL	.E:	Bedford W	est	TWP:	T4N	RNG:	R2W	SEC: 1, 12	
LATITUDE:	38° 47' 57.	6" N			LONGITUDE:	86° 35'	03.8" W		
LATITUDE:					LONGITUDE:				
U.S.G.S. GUA	GING STATIO	ON LOCATION	:	В	edford		AVG. DISCHARGE	(cfs): 4,047	
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	Υ	IF NOT, WHY?				
DESCRIPTIO	N OF SAMPLI	E SITE (Access	s, length, dire	ection sampled):	Started 500 feet a	bove Stu	ımphole Bridge	and sampled	
4,400 feet o	downstream	n. Area is im	npounded	behind Williar	ms Dam.				
				COLLECTIO	ON SUMMARY				
DATE:		9/15/2003		GEAR:	DC Electrofi	shing	EFFORT:	1 hour	
CREW: Scho	penung, Fis	her, Briggs							
OTHER GEAR	R/EFFORT: S	eine, 4 haul	3				WATER STAGE:	Normal	
CANOPY (%C	OPEN):	95		PHOTOS (Y/N):	Y	SECC	HI DISK (inches):	14	
AIR TEMP (F)):	77°	\	WATER TEMP (F):	70°		D.O. (ppm):	9.18	
CONDUCTIVI	TY:	560	μS	pH:	8.3		ALKALINITY:		
TDS:				2	80 mg/L				
STREAM MEA	ASUREMENT	S AVG. WIE	OTH:	327.6 ft	AVG. DEPTH:	164 in	ches MAX	DEPTH: 204 inches	
STATION LEN	NGTH: (1st da	te)	4,4	70 feet	(2nd date	e)			
WIDTH (ft)		DEPTH (in)		7					
330	156	168	144						
348	168	180	168		5		4		
357	156	144	144		SUBJECT RATIN		AESTHETIC RATING		
345	144	168	192	_	(1-10)		(1-10)		
258	144	204	180	\dashv					
ADDITIONAL (COMMENTS/P	OLLUTION IMP	ACTS: Nu	merous field	tile outlet pipes pre	esent.			

STREAM: <u>La</u>	ast Fork Wh	iite River			RIVER MILE: 94.3					
NEAREST TO	WN: Bedfor	rd				COUNTY: L	awrence			
QUADRANGL	E:	Bedford W	'est	TWP:	T5N	RNG:	R1W	SEC:	34	
LATITUDE:	38° 49' 34.5	5" N			LONGITU	JDE: <u>86° 30</u>	0' 48.0" W			
LATITUDE:					LONGITU	JDE:				
U.S.G.S. GUA	GING STATIO	ON LOCATION	:	В	edford		AVG. DISCHARG	GE (cfs):	4,047	
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)_	N	IF NOT, WHY?	Bridge abu	tments and ripra	ap present		
DESCRIPTION	N OF SAMPLE	SITE (Access	s, length, c	direction sampled):	Started at Lea	therwood (Creek and samp	led downs	tream	
past S.R. 3	7 bridge.									
					ON SUMMARY					
DATE:	(9/24/2003		GEAR:	DC Elec	trofishing	EFFORT:	1 h	our	
CREW: Scho										
OTHER GEAF							_ WATER STAGE:			
	·						CCHI DISK (inches):			
						66° D.O. (ppm				
CONDUCTIVI	TY:	600	JS	pH:	8		ALKALINITY:	15	3.9	
TDS:				3	800 mg/L					
					_		inches MAX			
STATION LEN	IGTH: (1st dat	e)	3,	,870 feet	(2nd	date)				
WIDTH (ft)		DEPTH (in)								
342	55	61	43							
288	45	72	74			5	6			
309	75	52	80		SUB.	JECTIVE	AESTHETIC			
312	67	77	85			ATING	RATING			
261	69	89	99		(1-10)	(1-10)			
	- 55		- 55	1						
ADDITIONAL (COMMENTS/PC	OLLUTION IMP	ACTS:							
			_							

STREAM: East Fork White River RIVER MILE: 106.4										
NEAREST TO	wn: Lawre	nceport			COL	JNTY: <u>La</u>	wrence			
QUADRANGL	E:	Bedford E	ast	TWP:	T4N	RNG:	R1E	SEC:	27	
LATITUDE:	38° 45' 13.	7" N			LONGITUDE	: <u>86° 23'</u>	07.1" W			
LATITUDE:					LONGITUDE	: <u> </u>				
U.S.G.S. GUA	GING STATIO	ON LOCATION	:	T4N,	R1E, S21		AVG. DISCHARG	E (cfs):	3,861	
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	N	IF NOT, WHY? Wa	shed ou	t dam and island	d prese	nt	
DESCRIPTIO	N OF SAMPLE	E SITE (Access	s, length, di	rection sampled):	Downstream of F	ishing C	reek, washed ou	ut dam a	about	
center of th	e station. S	Shocked bot	h sides of	f river.						
				COLLECTIO	ON SUMMARY					
DATE:	!	9/24/2003		GEAR:	DC Electron	fishing	EFFORT:	1	hour	
CREW: Scho	oenung, Fis	her, Briggs								
OTHER GEAR	R/EFFORT: S	eine, 4 hauls	3				WATER STAGE:	N	ormal	
CANOPY (%C	PEN):	99			S (Y/N): Y SECCHI DISK (inches):					
AIR TEMP (F)	:	77°		WATER TEMP (F):	68° D.O. (ppm):				7.4	
CONDUCTIVI	TY:	ر 560	JS	pH:	8.2		ALKALINITY:	1	53.9	
TDS:				2	90 mg/L					
STREAM MEA	ASUREMENTS	S AVG. WIE)TH:	236.4 ft	AVG. DEPTH:	63.5 ir	nches MAX	DEPTH:	95 inches	
STATION LEN	NGTH: (1st dat	te)	4,7	'82 feet	(2nd dat	e)				
WIDTH (ft)		DEPTH (in)								
300	48	55	55			7				
210	72	80	45		6	J	5			
258	45	75	95		SUBJEC		AESTHETIC			
198	40	60	90		RATIN (1-10		RATING (1-10)			
216	47	95	50		,	,	,			
ADDITIONAL (COMMENTS/PO	OLLUTION IMP	ACTS:							

STREAM: E	ast Fork Wh	nite River			RI\	/ER MILE	: <u>119.6</u>	
NEAREST TO	WN: Fort R	itner			cc	OUNTY: J	ackson, Washin	gton
QUADRANGL	-E:	Tunnelto	n	TWP:	4N	RNG:	2E	SEC: 23
LATITUDE:	N38 45.46	5			LONGITUD	E: <u>W86</u>	17.048	
LATITUDE:					LONGITUD	E:		
U.S.G.S. GUA	AGING STATIC	ON LOCATION:					AVG. DISCHARG	BE (cfs):
IS REACH RE	EPRESENTATI	IVE OF STREAM	M (Y/N)	Υ	IF NOT, WHY?			
DESCRIPTION	ON OF SAMPL	E SITE (Access	, length, di	rection sampled):	Access off of bar	nk at mo	outh of oxbow by	bridge at Fort
Ritner. Be	gan at oxbo	w mouth and	l sample	d downstream	2,218 feet along	both ba	nks.	
				00115071	NI OLIMANA DV			
					ON SUMMARY			
				GEAR:	D.C. b	oat	EFFORT:	3,600 seconds
	er, Wisener	-						
	· ·	seine hauls						
	<u></u>				N			
				="			<u></u>	meter not working
CONDUCTIVI	ITY:	560	1	pH:	8		ALKALINITY:	119.7
٠								
							<u> </u>	(DEPTH: 10.3 ft.
STATION LEN	NGTH: (1st dat	e)	2	,218 ft.	(2nd da	ite)		
WIDTH (ft)		DEPTH (in)						
218	3.3	3.8	7			_		
225	3.9	3.5	6.9					
235	1.4	3.8	6		SUBJE	CTIVE	AESTHETIC	
216	3.7	4	4.6		RATI		RATING	
256	7.6	5	1.6		(1-1	0)	(1-10)	
ADDITIONAL (COMMENTS/PC	DLLUTION IMPA	CTS:					

STREAM: E	TREAM: East Fork White River RIVER MILE: 129.7										
NEAREST TO	wn: Millpor	t				COUNTY:	Jackson, V	/ashingt	on		
QUADRANGL	E:	Medora	a	TWP:	4N	RN	G: <u>3</u>	E	SEC:	22	
LATITUDE:	N38 46.346	i			LONGITU	JDE: <u>W8</u>	6 10.185				
LATITUDE:					LONGITU	JDE:					
U.S.G.S. GUA	GING STATIO	N LOCATION:					AVG. DIS	CHARGE	(cfs):	3,717	
IS REACH RE	PRESENTATI	VE OF STREA	M (Y/N)	Υ	IF NOT, WHY?						
DESCRIPTION	ON OF SAMPLI	E SITE (Acces	s, length, dire	ection sampled):	Launched at D	NR ram	p at mouth	of Musca	atatuck	River.	
Began at ra	mp and sar	npled both	banks 2,5	87 feet in a d	ownstream dire	ction.					
				COLLECTIO	ON SUMMARY						
DATE:	(9/16/2003		GEAR:	D.C.	. boat	E	FFORT:	3,600	seconds	
CREW: Kelle	er, Wisener,	Smyth									
OTHER GEAF	R/EFFORT: 2	seine hauls					WATER S	STAGE: _	sligh	tly high	
CANOPY (%C	PEN):	95%		PHOTOS (Y/N):	N	8	SECCHI DISK (inches):	12 i	nches	
AIR TEMP (F)	:	80		WATER TEMP (F):	72	2.1	D.O	. (ppm):		1.1	
CONDUCTIVI	TY:	320	μS	pH:	7.5		ALKAI	_INITY: _	8	5.5	
TDS:											
STREAM MEA	SUREMENTS	AVG. WIE	OTH:	192 ft.	AVG. DEPTH:		5.2 ft.	MAX [EPTH:_	12.6 ft.	
STATION LEN	IGTH: (1st date	e)	2,	587 ft.	(2nd	l date)					
WIDTH (ft)		DEPTH (ft)									
	4.2	4.8	5.2	1							
185	3.6	4.5	8.3	1	Γ	$\overline{}$	Γ	\exists			
177	4	5	3.1	1	L Sur	JECTIVE	L_ ΔEST	— HETIC			
183	3.2	7	9.5	1		ATING		ΓING			
204	3.6	4.8	7.7	1	(1-10)	(1-	10)			
204	0.0	4.0	7.7	1							
ADDITIONAL	COMMENTS/PO		CTS: Se	⊒ sine hauls dor	ne on one and o	nnly ean	dhar Noo	ther shal	lowe en	itahle	
for seine.	ONINEN 19/PU	LLUTIUN IIVIP <i>E</i>	1013. <u>36</u>	ine nauls dui	ic on one and t	Jilly Sall	a bai. INO O	uici Siidi	10449 90	itable	
TOT SCILIE.											

STREAM: E	ast Fork vvn	ile River			RIV	ER MILE: 13	50.9		
NEAREST TO	wn: Medora	а			co	OUNTY: Jack	son		
QUADRANGL	E:	Medora	a	TWP:	4N, 5N	RNG:	3E	SEC:1,2,3	36
LATITUDE:	N38 48.863	i			LONGITUDE	E: <u>W86 08.8</u>	332		
LATITUDE:					LONGITUDE	E:			
U.S.G.S. GUA	GING STATIO	N LOCATION:	:				VG. DISCHARGE	E (cfs): 2,56	30
IS REACH RE	PRESENTATI	/E OF STREA	M (Y/N)	Υ	IF NOT, WHY?				
DESCRIPTION	ON OF SAMPLE	E SITE (Acces	s, length, di	rection sampled):	Access at DNR b	oat ramp a	t Medora. Be	gan at	
St. Rd. 235	bridge and	sampled do	ownstrear	m along both b	anks 2,270 feet.				
				COLLECTIO	ON SUMMARY				
DATE:	ę	9/16/2003		GEAR:	D.C. bo	oat	EFFORT:	3,600 secon	nds
CREW: Kelle	er, Wisener,	Smyth							
OTHER GEAR	R/EFFORT: 3 s	seine hauls	i			v	/ATER STAGE:	slightly hig	jh
CANOPY (%C	PEN):	95%		PHOTOS (Y/N):	N	SECCH	II DISK (inches):	22 inches	3
AIR TEMP (F)	:	77		WATER TEMP (F):	69.8	3	D.O. (ppm):	9.7	
CONDUCTIVI	TY:	550	μS	pH:	ph: 8.5 ALKALINITY			119.7	
TDS:									
STREAM MEA	ASUREMENTS	AVG. WIE	OTH:	167 ft.	AVG. DEPTH:	5.9 ft	MAX	DEPTH: 15.0	ft.
STATION LEN	NGTH: (1st date	e)	2	,270 ft.	(2nd da	te)			
MIDTH (#)		DEDTIL (#)							
WIDTH (ft)	2.2	DEPTH (ft) 4.8	7.5	\neg					
113	2.2 4	9.9	7.5		Г	7			
			15				A FOTUETIO		
117	4.2	8.7	14.4		SUBJE(RATI		AESTHETIC RATING		
247	2.1	2	2.6	_	(1-1	0)	(1-10)		
184	1.6	5.9	3.9	\dashv					
				<u> </u>	makm				
	COMMENTS/PO				not very good.				
Observed a	a couple of f	resnwater o	arum Dut I	not captured.					

STREAM: E	ast Fork Wh	ite River	F	RIVER MILE: 146.2				
NEAREST TO	WN: Brown	stown			C	COUNTY: Ja	ackson	
QUADRANGL	E:	Brownsto	wn	TWP:	5N	RNG:	4E	SEC: 16
LATITUDE:	N38 52.467	7			LONGITU	DE: <u>W86</u> 0	5.062	
LATITUDE:					LONGITU	DE:		
U.S.G.S. GUA	GING STATIO	N LOCATION:					AVG. DISCHARGE	(cfs): 2,516
IS REACH RE	PRESENTATI	VE OF STREA	M (Y/N)	Υ	IF NOT, WHY?			
DESCRIPTION	ON OF SAMPL	E SITE (Acces	s, length, di	irection sampled):	Access at Brow	nstown P	ublic Fishing Area	a. Began at
Hwy 50 brid	dge. Sampl	ed downstre	eam 2,74	6 ft. along both	n banks.			
				COLLECTIO	ON SUMMARY			
DATE:	!	9/15/2003		GEAR:	D.C.	boat	EFFORT:	3,600 sec.
CREW: Kelle	er, Wisener,	, Smyth						
OTHER GEAF	R/EFFORT: 4	seine hauls					WATER STAGE:	slightly high
CANOPY (%C	PEN):	95%		PHOTOS (Y/N):	N	SEC	CCHI DISK (inches):	30 inches
AIR TEMP (F)	:	75		WATER TEMP (F):	70	.1	D.O. (ppm):	12
CONDUCTIVI	TY:	560	μS	pH:	9.5		ALKALINITY:	85.5
TDS:								
STREAM MEA	SUREMENTS	AVG. WIE	OTH:	198 ft.	AVG. DEPTH:	4.0) ft. MAX [DEPTH: 6.9 ft.
STATION LEN	IGTH: (1st date	e)		2,746	(2nd	date)		
WIDTH (ft)		DEPTH (ft)		$\overline{}$				
206	6.8	4.6	6.4		Γ	\neg		
171	5.4	3.8	1.3					
200	1.8	2.4	4			ECTIVE TING	AESTHETIC RATING	
266	2.2	2.7	0.9			-10)	(1-10)	
147	5.6	6	5.4					
ADDITIONAL C	COMMENTS/PC	DLLUTION IMPA	CTS: <u>le</u>	esions on 4 red	horse and 2 car	psuckers		

STREAM: <u>E</u>	ast Fork Wr	iite River				RIVER MILE	∷ <u>154.5</u>			
NEAREST TO	WN: Brown	stown				COUNTY:	Jacksor	1		
QUADRANGL	E:	Seymou	ır	TWP:	6N	RNG:		5E	SEC:	32
LATITUDE:*	38° 55.300	(GPS ι	units = WG	S-84)	LONGIT	TUDE: <u>85° 5</u>	9.303'	(GPS uni	ts = WG	3-84)
LATITUDE:**	38° 55.161	(GPS ι	units = WG	S-84)	LONGIT	TUDE: <u>85° 5</u>	9.503'	(GPS uni	ts = WG	3-84)
U.S.G.S. GAL	IGING STATIO	ON LOCATION	N:				AVG.	DISCHARGE	≣ (cfs):	2,367
IS REACH RE	PRESENTAT	IVE OF STRE	AM (Y/N)	Υ	IF NOT, WHY?					
DESCRIPTIO	N OF SAMPLE	SITE (Acces	s, length, dire	ction sampled):	Launched fro	m private r	amp in	New Elizal	bethtown	
Sample site	e extended	downstream	n approxima	ately 750 feet	from ramp a	nd approxi	mately	1,125 feet	upstrean	າ from
ramp. Left	and right ba	anks were s	ampled in	downstream o	direction.					
				COLLECTIO	N SUMMAR	Y				
DATE:	!	9/24/2003		GEAR:	16-foot DC	shocker b	oat	EFFORT:	3,600 s	econds
CREW: L. Le	ehman, J. F	erguson II,	D. King							
OTHER GEAR/EFFORT: 4 hauls with 6' x 50' seine (1/8" Delta mesh) WATER STAGE:										
CANOPY (%OPEN): 95 PHOTOS (Y/N):				Υ	SE	CCHI DIS	SK (inches):	5	6	
AIR TEMP (F)	:	63	v	VATER TEMP (F):		64		D.O. (ppm):	8.	75
CONDUCTIVI	TY:	450	μS	pH:	8.0)	AL	KALINITY:	239	ppm
TDS:			(conduc	tivity) (0.84 co	orrelation fact	or) = 378 p	pm			
STREAM MEA	ASUREMENTS	S AVG. WI	OTH:1	199 feet	AVG. DEPTH:	53 i	inches	MAX	DEPTH:	11 feet
STATION LEN	NGTH: (1st dat	e)	1,87	'5 feet	(2n	d date)		NA	1	
WIDTH (ft)		DEPTH (in)	Ī	1						
170	37	60	88	-						
213	50	44	25	1		6		4		
226	48	91	98	1		BJECTIVE		ESTHETIC		
185	42	56	70	4		RATING (1-10)		RATING (1-10)		
200	24	31	37	4		, ,		, ,		
]						
ADDITIONAL (COMMENTS/PO	OLLUTION IMF	PACTS: *To	p of station.	**Bottom of	station.				
Latitude an	d longitude	near center	of station	= 38° 55.165'	and 85° 59.3	309' (GPS	units =	WGS-84)		

STREAM: E	ast Fork Wh	ite River			RIV	/ER MILE: 162.2			
NEAREST TO	WN: Seymo	our			cc	OUNTY: Jacksor	1		
QUADRANGL	.E:	Seymou	ır	TWP:	6N	RNG:	5E	SEC:	11
LATITUDE:*	38° 58.466	(GPS ι	ınits = WC	GS-84)	LONGITUDI	E: <u>85° 55.788'</u>	(GPS unit	s = WG	S-84)
LATITUDE:**	38° 57.982	(GPS ι	ınits = WC	SS-84)	LONGITUDI	E: 85° 53.609'	(GPS unit	s = WG	S-84)
U.S.G.S. GAL	IGING STATIO	ON LOCATION	l:			AVG.	DISCHARGE	(cfs):	2,341
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	Υ	IF NOT, WHY?				
DESCRIPTION	N OF SAMPLE	SITE (Access	s, length, dir	ection sampled):	Launched from [ONR ramp at B	ell Ford. T	op of st	ation
started at old railroad bridge pier and extended downstream approximately 3,106 feet. Both banks were									
sampled in downstream direction.									
				COLLECTIO	ON SUMMARY				
DATE:	,	9/23/2003		GEAR:	16-foot DC sh	ocker boat	EFFORT:	3,600	seconds
CREW: L. Lehman, J. Ferguson II, D. King									
OTHER GEAR/EFFORT: 4 hauls with 6' x 50' seine (1/8" Delta mesh) WATER STAGE:									
CANOPY (%OPEN):95PHOTOS (Y/N):YSECCHI DISK (inches):53					53				
AIR TEMP (F)	:	59		WATER TEMP (F):	65		D.O. (ppm): _	8	.62
CONDUCTIVI	TY:	470	μS	pH:	8.0	AL	KALINITY: 239 ppm		ppm
TDS:			(conduc	ctivity) (0.84 c	correlation factor)	= 395 ppm			
STREAM ME	ASUREMENTS	S AVG. WIE	OTH:	185 feet	AVG. DEPTH:	80 inches	MAX [DEPTH:_	16 feet
STATION LEN	NGTH: (1st dat	e)	3,1	06 feet	(2nd da	ite)	NA		
WIDTH (ft)		DEPTH (in)		7					
213	144	168	78	4		٦			
209	98	48	48	_	7		6		
177	132	58	34	_	SUBJE		ESTHETIC		
176	50	70	94	_	RATI		RATING		
150	38	56	84		(1-1 1	0)	(1-10)		
ADDITIONAL (COMMENTS/PO	OLLUTION IMP	ACTS: Ri	ver has cut a	new channel on t	he left bank, ju	st above to	p of this	<u>; </u>
station, since the last DFW survey here in 1993 (this is how oxbows are formed). *Top of station. **Bottom of									
station.									

STREAM: E	ast Fork Wh	nite River			RIVER MILE: 166.6				
NEAREST TO	WN: Rockfo	ord			cc	DUNTY: Jacksor	1		
QUADRANGL	.E:	Seymou	ır	TWP:	6N, 7N	RNG:	6E	SEC:	6, 31
LATITUDE:*	38° 59.951	່ (GPS ເ	ınits = WG	S-84)	LONGITUD	E: 85° 53.496'	(GPS uni	ts = WG	S-84)
LATITUDE:**	38° 59.611	່ (GPS ເ	ınits = WG	S-84)	LONGITUD	E: 85° 53.703'	(GPS uni	ts = WG	S-84)
U.S.G.S. GAL	JGING STATIO	ON LOCATION	l:			AVG.	DISCHARGE	E (cfs):	2,339
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	N	IF NOT, WHY? A	low-head dam	3,000 feet	below bo	ottom of
station may	be slowing	the flow in	this sample	e site. A fish	ladder, which a	opears to be fu	unctional, is	s presen	t at dam.
DESCRIPTIO	DESCRIPTION OF SAMPLE SITE (Access, length, direction sampled): Launched from DNR ramp at Rockford. Top of station								
started at S	state Road 1	11 and exter	nded appro	ximately 2,48	36 feet downstre	am. Both bank	s were sar	mpled in	
downstrear	downstream direction.								
				COLLECTIO	N SUMMARY				
DATE:	,	9/18/2003		GEAR:	16-foot DC sh	ocker boat	EFFORT:	3,649	seconds
CREW: L. Lehman, J. Ferguson II, D. King									
OTHER GEAR/EFFORT: 3.5 hauls with 6' x 50' seine (1/8" Delta mesh) WATER STAGE:									
CANOPY (%OPEN): 95 PHOTOS (Y/N): Y SECCHI DISK (inches): 44						14			
AIR TEMP (F)):	80	V	VATER TEMP (F):	67		D.O. (ppm):	8	.27
CONDUCTIVI	TY:	480	μS	pH:	8.3	AL	KALINITY:	274	ppm
TDS:			(conduc	tivity) (0.84 co	orrelation factor)	= 403 ppm			
STREAM ME	ASUREMENTS	S AVG. WIE	OTH:2	280 feet	AVG. DEPTH:	111 inches	MAX	DEPTH:_	23 feet
STATION LEN	NGTH: (1st dat	te)	2,48	6 feet	(2nd da	ate)	NA	١	
WIDTH (ft)		DEPTH (in)		T					
298	144	120	36	4	Г	7			
263	110	72	60	4	4	<u> </u>	3		
212	228	216	228	4	SUBJE		ESTHETIC		
295	108	96	42	4	RAT (1-1		RATING (1-10)		
330	43	62	96	4	(,	(1.10)		
]					
ADDITIONAL (COMMENTS/PO	OLLUTION IMP	ACTS: App	proximately 1	/3 of right bank i	s eroding away	due to far	ming at ı	iver's
edge and absence of any riparian vegetation.									
Latitude an	d longitude	near center	of station	= 38° 59.862'	and 85° 53.743	B' (GPS units =	WGS-84)		

STREAM: E	STREAM: East Fork White River						RIVER MILE: 177.6				
NEAREST TO	wn: Azalia				co	UNTY: Barthol	omew				
QUADRANGL	.E:	Azalia		TWP:	7N	RNG:	6E	SEC:	4		
LATITUDE:*	39° 05.100	(GPS ι	ınits = WGS	S-84)	LONGITUDE	: 85° 51.602'	(GPS uni	ts = WG	S-84)		
LATITUDE:**	39° 04.729	(GPS ι	ınits = WGS	S-84)	LONGITUDE	:: <u>85° 51.610'</u>	(GPS uni	ts = WG	S-84)		
U.S.G.S. GAL	IGING STATIO	ON LOCATION	l:			AVG	. DISCHARGE	E (cfs):	2,053		
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	Υ	IF NOT, WHY?						
DESCRIPTION OF SAMPLE SITE (Access, length, direction sampled): Launched from DNR ramp at Azalia bridge. Top of station											
started at bridge on County Road 800 South and extended approximately 2,326 feet downstream. Both banks											
were samp	were sampled in downstream direction.										
COLLECTION SUMMARY											
DATE:	!	9/17/2003		GEAR:	16-foot DC sho	ocker boat	EFFORT:	3,642	seconds		
CREW: L. Lehman, J. Ferguson II, D. King											
OTHER GEAR	OTHER GEAR/EFFORT: 2 hauls with 6' x 50' seine (1/8" Delta mesh) WATER STAGE:										
CANOPY (%C	PEN):	85	Ph	HOTOS (Y/N):	Y	SECCHI D	SK (inches):	Ę	58		
AIR TEMP (F)	:	69	w	ATER TEMP (F):	67		D.O. (ppm):	8	.21		
CONDUCTIVI	TY:	480	μS	pH:	8.3	A	LKALINITY:	274	ppm		
TDS:			(conducti	vity) (0.84 co	orrelation factor)	= 403 ppm					
STREAM MEA	ASUREMENTS	S AVG. WIE	OTH: 2	10 feet	AVG. DEPTH:	56 inches	MAX	DEPTH:	11 feet		
STATION LEN	NGTH: (1st dat	e)	2,326	6 feet	(2nd dat	te)	NA	١			
WIDTH (ft)		DEPTH (in)		1							
210	54	66	132			٦					
219	66	29	42		6	_	6				
206	65	54	32		SUBJEC		ESTHETIC				
193	67	60	41		RATII (1-10		RATING (1-10)				
220	53	46	37		,	-,	,				
ADDITIONAL COMMENTS/POLLUTION IMPACTS: *Top of station. **Bottom of station.											
Latitude an	Latitude and longitude near center of station = 39° 04.879' and 85° 51.645' (GPS units = WGS-84)										

STREAM: E	STREAM: East Fork White River					RIVER MILE: 189.1				
NEAREST TO	WN: Colum	bus			cc	OUNTY: Bartho	lomew			
QUADRANGL	.E:	Columbu	ıs	TWP:	9N	RNG:	5E	SEC:	25	
LATITUDE:*	39° 11.831	(GPS ι	ınits = WGS	S-84)	LONGITUDI	E: <u>85° 55.385'</u>	(GPS uni	ts = WG	S-84)	
LATITUDE:**	39° 11.442'	(GPS ι	ınits = WGS	S-84)	LONGITUDI	E: <u>85° 55.183'</u>	(GPS uni	ts = WG	S-84)	
U.S.G.S. GAL	IGING STATIO	ON LOCATION	l:			AVG	6. DISCHARGE	E (cfs):	1,708	
IS REACH RE	PRESENTAT	IVE OF STREA	AM (Y/N)	N	IF NOT, WHY? A w	vastewater treatn	nent plant disch	narge is pr	esent	
on left bank a	oproximately 3	00 feet below t	top of station.	A lowhead dan	n is present approxin	nately 1,000 feet	above top of s	tation.		
DESCRIPTIO	DESCRIPTION OF SAMPLE SITE (Access, length, direction sampled): Launched at DNR ramp behind wastewater treatment									
plant. Top of station started at ramp and extended approximately 2,726 feet downstream. Both banks were										
sampled in downstream direction.										
COLLECTION SUMMARY										
DATE:	!	9/16/2003		GEAR:	16-foot DC sh	ocker boat	EFFORT:	3,634	seconds	
CREW: L. Lehman, J. Ferguson II, D. King										
OTHER GEAL	OTHER GEAR/EFFORT: 3 hauls with 6' x 50' seine (1/8" Delta mesh) WATER STAGE:									
CANOPY (%C	PEN):	90	Ph	HOTOS (Y/N):	Υ	SECCHI D	ISK (inches):	Ę	59	
AIR TEMP (F	:	67	w	ATER TEMP (F):	66		D.O. (ppm):	8	.49	
CONDUCTIVI	TY:	400	μS	pH:	8.3		LKALINITY:	274	ppm	
TDS:			(conducti	vity) (0.84 co	orrelation factor)	= 336 ppm				
STREAM ME	ASUREMENTS	S AVG. WIE	OTH: 20	07 feet	AVG. DEPTH:	48 inches	MAX I	DEPTH:	12 feet	
STATION LE	NGTH: (1st dat	e)	2,726	6 feet	(2nd da	nte)	NA	1		
WIDTH (ft)		DEPTH (in)]						
209	32	29	41			٦				
270	32	28	23		7		4			
169	31	74	132		SUBJE		AESTHETIC			
192	41	61	74		RATI (1-1		RATING (1-10)			
195	36	41	50		`	-,	(-,			
ADDITIONAL COMMENTS/POLLUTION IMPACTS: *Top of station. **Bottom of station.										
Latitude an	Latitude and longitude near center of station = 39° 11.632' and 85° 55.218' (GPS units = WGS-84)									

APPENDIX F

QHEI FORMS FOR ALL SITES

STREAM: EFWR	RIVER MILE	1.00	OATE: 9/24/200	03 QHEI SCORE 53
1) SUBSTRATE: (Check ONLY Two States Pool RIFFLE			ORIGIN (all) SIL	SUBSTRATE SCORE 13
BLDER/SLAB(10) BOULDER(9) X COBBLE(8) HARDPAN(4) X MUCK/SILT(2) TOTAL NUMBER OF SUBSTRATE TYPES: NOTE: (Ignore sludge that originates from point COMMENTS:	GRAVEL(7) X SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) >4(2) X < 4(0) sources: score is based on natural substrate	LIMESTONE(1) X TILLS(1) SANDSTONE(0 SHALE(-1) COAL FINES(-2	HARDPAN(0) SILT-NORM Extent of Em X EXTENSIVE	(0) SILT-FREE(1) nbeddedness (check one)
2) INSTREAM COVER: (20) TYPE(0	Check all that apply)		AMOUNT (Check only or	COVER SCORE 11 ne or Check 2 and AVERAGE)
UNDERCUT BANKS(1) OVERHANGING VEGETATION(1) SHALLOWS (IN SLOW WATER)(1) COMMENTS:) ACROPHYTES(1) /OODY DEBRIS(1)	X MODER SPARSI	SIVE >75%(11) ATE 25-75%(7) E 5-25%(3) Y ABSENT <5%(1)
3) CHANNEL MORPHOLOGY: (Check	ONLY ONE per Category or Chec	k 2 and AVERAGE)(2	20)	12
SINUOSITY DEVELOPMEN	CHANNELIZATION X NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO RECOVE	STABILITY HIGH(3) X MODERATE(2) LOW(1)	CANOPY REMOV DREDGING	IMPOUND ISLAND
COMMENTS:				
4) RIPARIAN ZONE AND BANK EROS River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) X WIDE>150ft.(4) X MODERATE 30-150 ft.(3) NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0) COMMENTS:	EROSION: (Check ONE box or Check 2 EROSION/RUNOFF-FLOODI L R (most predominant pe X FOREST, SWAMP(3) X OPEN PASTURE/ROW CR RESID.,PARK,NEW FIELDI FENCED PASTURE(1)	PLAIN QUALITY or bank) L R (per URBA OP(0) X SHUF (1) CONS		RIPARIAN SCORE 7.1 BANK EROSION L R (per bank) NONE OR LITTLE(3) X MODERATE(2) HEAVY OR SEVERE(1)
5) POOL/GLIDE AND RIFFLE/RUN QU MAX. DEPTH (Check 1)	JALITY (12) MORPHOLOGY (Check 1)	POOL = 0	/RUN/RIFFLE CURRENT VEL	POOL SCORE 0
X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Pool=0)(0) COMMENTS:	POOL WIDTH-RIFFLE WIDTH(2) POOL WIDTH-RIFFLE WIDTH(1) POOL WIDTH-RIFFLE WIDTH(0)	TORF	RENTIAL(-1) EDDIES (1) INTERS ERATE(1) INTERM	
RIFFLE/RUN DEPTH GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY >24 in.(1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS:	RIFFLE/RUN SUBSTRATE STABLE (e.g., Cobble,Boul MOD. STABLE (e.g., Pea G UNSTABLE (Gravel, Sand)(X NO RIFFLE(0)	der)(2) ravel)(1)	EXTENSIVE(-1) MODERATE(0) LOW(1)	RIFFLE SCORE 0 DNESS NONE(2) X NO RIFFLE(0)
6) GRADIENT (FEET/MILE)(10): 2	2.57 % POOL	% RIFFLE	% RUN 100	GRADIENT SCORE 10

STREAM: EFWR	RIVER MILE	17.11	DATE:	9/22/2003	QHEISCORE 70
1) SUBSTRATE: (Check ONLY Two Substrate POOL RIFFLE POOL RIFFLE ROULDER(9) X X X X COBBLE(8) X X X X COBBLE(8) X X TOTAL NUMBER OF SUBSTRATE TYPES: >4(2) NOTE: (Ignore sludge that originates from point sources: strong models of the complex of the	GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) <-4(0)	X LIMESTC X LIMESTC X TILLS(1) SANDST SHALE(- COAL FI	RATE ORIGIN (all) DNE(1) RIP/RAP(0) HARDPAN(0 ONE(0) 1)	SILT CO' X SILT-HEAVY(-2) SILT-NORM(0)	BSTRATE SCORE 20 VER (one) SILT-MOD(-1) SILT-FREE(1) Edness (check one) MODERATE(-1) NONE(1)
н н	POOLS(2) OXBOWS(VADS(1) AQUATIC I	1) MACROPHYTES(1) WOODY DEBRIS(1)	AMOUNT	(Check only one or C EXTENSIVE >7 X MODERATE 25 SPARSE 5-25% NEARLY ABSE	-75%(7) o(3)
3) CHANNEL MORPHOLOGY: (Check ONLY COMMENTS:	ONE per Category or Che CHANNELIZATION X NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO RECOVE	STABILITATION NOT STABILITATIO	TY MC	DDIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL MO	IMPOUND ISLAND LEVEED BANK SHAPING
4) RIPARIAN ZONE AND BANK EROSION: (C River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) L WIDE>150ft.(4) X MODERATE 30-150 ft.(3) NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0) COMMENTS:	PROBLEM ONE BOX OF Check OSION/RUNOFF-FLOOE R (most predominant p FOREST, SWAMP(3) OPEN PASTURE/ROW CO RESID.,PARK,NEW FIELD FENCED PASTURE(1)	PLAIN QUALITY er bank) L R	. , , ,	AL(0) X	RIPARIAN SCORE 5 NK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
X >4 ft.(6) POOL X POOL	12) NO OLOGY (Check 1) WIDTH>RIFFLE WIDTH(2) WIDTH=RIFFLE WIDTH(1) WIDTH <riffle td="" width(0)<=""><td></td><td>POOL/RUN/RIFFLE O TORRENTIAL(-1) FAST(1) MODERATE(1) SLOW(1)</td><td>X EDDIES(1) INTERSTITIAL(-</td><td></td></riffle>		POOL/RUN/RIFFLE O TORRENTIAL(-1) FAST(1) MODERATE(1) SLOW(1)	X EDDIES(1) INTERSTITIAL(-	
RIFFLE/RUN DEPTH X GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY 2-4 in.(1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS: 6) GRADIENT (FEET/MILE)(10): 0.49	RIFFLE/RUN SUBSTRAT STABLE (e.g., Cobble,Bou X MOD. STABLE (e.g., Pea of the standard of the	ılder)(2) Gravel)(1)	X MODER LOW(1)	ATE(0) NC	RIFFLE SCORE 4.5 RIE(2) RIFFLE(0) ADJENT SCORE 6

STREAM:	EFWR	RIVER MILE	26.14	DATE:	9/23/2003	QHEISCORE 69
1) SUBSTF	RATE: (Check ONLY Two	Substrate Type Boxes: Check		RATE ORIGIN ((all) SILT CO	JBSTRATE SCORE 20 VER (one)
X COB HAR X MUC		X GRAVEL(7) X SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) >4(2)				

STREAM: EFWR Hindostan Falls DS RIVER MILE 40.88 DATE: 9/17/2003 QHEI SCORE 82
1) SUBSTRATE: (Check ONLY Two Substrate Type Boxes: Check all types present)(20) SUBSTRATE SCORE 13.75 TYPE POOL RIFFLE POOL RIFFLE SUBSTRATE ORIGIN (all) BOULDER(9) X X X GRAVEL(7) X X X LIMESTONE(1) RIP/RAP(0) SILT-HEAVY(-2) X SILT-MOD(-1) BOULDER(9) X X SAND(6) X TILLS(1) HARDPAN(0) SILT-NORM(0) SILT-FREE(1) BEDROCK(5) SANDSTONE(0) Extent of Embeddedness (check one) HARDPAN(4) SHALE(-1) COAL FINES(-2) LOW(0) NOTE: (Ignore sludge that originates from point sources: score is based on natural substrates) COMMENTS:
2) INSTREAM COVER: (20) TYPE(Check all that apply) UNDERCUT BANKS(1) X OVERHANGING VEGETATION(1) X SHALLOWS (IN SLOW WATER)(1) COMMENTS: COVER SCORE TYPE(Check all that apply) AMOUNT (Check only one or Check 2 and AVERAGE) X EXTENSIVE >75%(11) MODERATE 25-75%(7) SPARSE 5-25%(3) NEARLY ABSENT <5%(1)
3) CHANNEL MORPHOLOGY: (Check ONLY ONE per Category or Check 2 and AVERAGE)(20) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY MODIFICATION/OTHER SNAGGING IMPOUND SLAND LOW(2) FAIR(3) NONE(1) POOR(1) RECOVERED(4) RECENT OR NO RECOVERY(1) COMMENTS:
4) RIPARIAN ZONE AND BANK EROSION: (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE 9.3 RIPARIAN ZONE AND BANK EROSION: (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE 9.3 BANK EROSION L R (per bank) MODERATE 30-150 ft.(3) NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0) COMMENTS:
NO POOL SCORE 9
RIFFLE/RUN DEPTH RIFFLE/RUN SUBSTRATE RIFFLE/RUN SUBSTRATE RIFFLE/RUN EMBEDDEDNESS X GENERALLY >4 in. MAX. >20 in.(4) GENERALLY >4 in. MAX. <20 in.(3) GENERALLY 2-4 in.(1) GENERALLY 2-2 in.(Riffle=0)(0) COMMENTS: RIFFLE/RUN SUBSTRATE RIFFLE/RUN EMBEDDEDNESS EXTENSIVE(-1) NONE(2) NO RIFFLE(0) NO RIFFLE(0) RIFFLE(0) NO RIFFLE(0) RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS NONE(2) NO RIFFLE(0) NO RIFFLE(0) RIFFLE(0) NO RIFFLE(0) RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS NONE(2) NO RIFFLE(0) RIFFLE(0) NO RIFFLE(0) RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS NONE(2) NO RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EMBEDDEDNESS NONE(2) NO RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EMBEDDEDNESS NONE(2) NO RIFFLE(0) RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EM
DIGRADIENT (FEET/WILE)(TU): 1.74 % POOL SU % RIFFLE TU % RUN DU GRADIENT SCORH TU

STREAM: EFWR	RIVER MILE	42.07	DATE: 9/	16/2003	QHEISCORE 41
1) SUBSTRATE: (Check ONLY Two S	E POOL	RIFFLE SUBSTRA	TE ORIGIN (all)	SILT COVI	— ' '
BLDER/SLAB(10) BOULDER(9) X COBBLE(8) HARDPAN(4) X MUCK/SILT(2)	GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0)	LIMESTONE TILLS(1) SANDSTON SHALE(-1) COAL FINES	HARDPAN(0) X SI E(0) Exte		SILT-MOD(-1) SILT-FREE(1) dness (check one) MODERATE(-1) NONE(1)
TOTAL NUMBER OF SUBSTRATE TYPES: NOTE: (Ignore sludge that originates from point COMMENTS:	>4(2) X <4(0) t sources: score is based on natural substra	ates)			
2) INSTREAM COVER: (20) TYPE(UNDERCUT BANKS(1) OVERHANGING VEGETATION(1) X SHALLOWS (IN SLOW WATER)(1)	–	S(1) MACROPHYTES(1) WOODY DEBRIS(1)	AMOUNT (Chec	k only one or Ch EXTENSIVE >75% MODERATE 25-7 SPARSE 5-25%(3	5%(7)
COMMENTS:			L	NEARLY ABSEN	Γ<5%(1)
3) CHANNEL MORPHOLOGY: (Check SINUOSITY HIGH(4) MODERATE(3) LOW(2) NONE(1) DEVELOPMEN EXCELLENT(7) GOOD(5) FAIR(3) X POOR(1)		STABILITY HIGH(3) X MODERATE LOW(1)	MODIFIC SNAGG RELOCA CANOP DREDG	ATION Y REMOVAL	IMPOUND ISLAND LEVEED BANK SHAPING
COMMENTS:	CIONI, (Charle ONE have as Charle	- 0 and AVEDAGE no			
4) RIPARIAN ZONE AND BANK ERO River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) X WIDE>150ft.(4) X MODERATE 30-150 ft.(3) NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0) COMMENTS:	SION: (Check ONE box or Check EROSION/RUNOFF-FLOOI L R (most predominant pre	DPLAIN QUALITY per bank) L R (p CROP(0) SH	er bank) (10) er bank) RBAN OR INDUSTRIAL(0) HURB OR OLD FIELD(2) DINSERV. TILLAGE(1) NING/CONSTRUCTION(0)	BANI L	RIPARIAN SCORE 8.5 K EROSION R (per bank) NONE OR LITTLE(3) X MODERATE(2) HEAVY OR SEVERE(1)
5) POOL/GLIDE AND RIFFLE/RUN Q MAX. DEPTH (Check 1) X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Pool=0)(0) COMMENTS: No Pool - All Rur	MORPHOLOGY (Check 1) POOL WIDTH>RIFFLE WIDTH(2) POOL WIDTH=RIFFLE WIDTH(1) X POOL WIDTH <riffle td="" width(0)<=""><td>TC FA</td><td>DL/RUN/RIFFLE CURRE RRENTIAL(-1) ST(1) DDERATE(1) OW(1)</td><td>ENT VELOCITY (EDDIES(1) INTERSTITIAL(-1) INTERMITTENT(-2)</td><td>)</td></riffle>	TC FA	DL/RUN/RIFFLE CURRE RRENTIAL(-1) ST(1) DDERATE(1) OW(1)	ENT VELOCITY (EDDIES(1) INTERSTITIAL(-1) INTERMITTENT(-2))
RIFFLE/RUN DEPTH GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY 2-4 in.(1) X GENERALLY <2 in.(Riffle=0)(0) COMMENTS:	RIFFLE/RUN SUBSTRAT STABLE (e.g., Cobble,Bo MOD. STABLE (e.g., Pea UNSTABLE (Gravel, Sand X NO RIFFLE(0)	oulder)(2) a Gravel)(1)	RIFFLE/RUN EM EXTENSIVE(-1) MODERATE(0) LOW(1)	IBEDDEDNESS NONE	RIFFLE SCORE 0
6) GRADIENT (FEET/MILE)(10):	0.77 % POOL	% RIFFLE	% RUN	100 GRAI	DIENT SCORE 8

STREAM: East Fork White Riv	er RIVER MILE	54.7	DATE: 9/16/2	2003 QHEI SCORE 79
1) SUBSTRATE: (Check ONLY Two Surve Pool RIFFLE X BLDER/SLAB(10) X BOULDER(9) X X COBBLE(8) X HARDPAN(4)	bstrate Type Boxes: Check all typool GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3)		RIP/RAP(0) SILT-HE HARDPAN(0) X SILT-NC (0) Extent of	SUBSTRATE SCORE 19 SILT COVER (one) EAVY(-2) SILT-MOD(-1) SIM(0) SILT-FREE(1) Embeddedness (check one) SIVE(-2) MODERATE(-1)
TOTAL NUMBER OF SUBSTRATE TYPES: NOTE: (Ignore sludge that originates from point s COMMENTS: 2) INSTREAM COVER: (20)	ARTIFIC(0) () >4(2)	COAL FINES(-2) X LOW(0)	NONE(1) COVER SCORE 14
TYPE(C UNDERCUT BANKS(1) X OVERHANGING VEGETATION(1)		MACROPHYTES(1) WOODY DEBRIS(1)	X MOI	y one or Check 2 and AVERAGE) ENSIVE >75%(11) DERATE 25-75%(7) ARSE 5-25%(3) RRLY ABSENT <5%(1)
3) CHANNEL MORPHOLOGY: (Check SINUOSITY DEVELOPMENT HIGH(4) EXCELLENT(7) GOOD(5) LOW(2) X FAIR(3) X NONE(1) POOR(1)	·	STABILITY X HIGH(3) MODERATE(2) LOW(1)	MODIFICATI SNAGGING RELOCATION CANOPY REM DREDGING	IMPOUND ISLAND
4) RIPARIAN ZONE AND BANK EROS River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) X WIDE>150ft.(4) X MODERATE 30-150 ft.(3) X NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0) COMMENTS:	EROSION/RUNOFF-FLOOI L R (most predominant processes) X OPEN PASTURE/ROW OF RESID., PARK, NEW FIELD FENCED PASTURE(1)	DPLAIN QUALITY Der bank) L R (pe	r bank) (10) r bank) BAN OR INDUSTRIAL(0) JRB OR OLD FIELD(2) NSERV. TILLAGE(1) ING/CONSTRUCTION(0)	RIPARIAN SCORE 8 BANK EROSION L R (per bank) X NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
5) POOL/GLIDE AND RIFFLE/RUN QU MAX. DEPTH (Check 1) X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Pool=0)(0) COMMENTS:	MORPHOLOGY (Check 1) POOL WIDTH>RIFFLE WIDTH(2) POOL WIDTH=RIFFLE WIDTH(1) POOL WIDTH <riffle td="" width(0)<=""><td>X FAS</td><td>RRENTIAL(-1) X EDI</td><td>POOL SCORE 11 //ELOCITY (Check all that Apply) DIES(1) ERSTITIAL(-1) ERMITTENT(-2)</td></riffle>	X FAS	RRENTIAL(-1) X EDI	POOL SCORE 11 //ELOCITY (Check all that Apply) DIES(1) ERSTITIAL(-1) ERMITTENT(-2)
RIFFLE/RUN DEPTH X GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY 2-4 in.(1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS:	RIFFLE/RUN SUBSTRAT X STABLE (e.g., Cobble, Bo MOD. STABLE (e.g., Pea UNSTABLE (Gravel, Sand NO RIFFLE(0)	ulder)(2) Gravel)(1)	RIFFLE/RUN EMBED EXTENSIVE(-1) X MODERATE(0) LOW(1)	NONE(2) NO RIFFLE(0)

STREAM:	East Fork White R	iver RIVER MILE	75.08	DATE:	9/25/2003	QHEI SCORE 80
TYPE BLDE X BOUI COBI HARRI MUC TOTAL NUM	POOL RIFFI ER/SLAB(10) X X LDER(9) X X BLE(8) X X DPAN(4) K/SILT(2) X MBER OF SUBSTRATE TYPES: re sludge that originates from poi	X GRAVEL(7) X SAND(6) X	X X LIMES X X TILLS(SAND SHALI	TRATE ORIGIN (a TONE(1) RIP/RAP 1) HARDPAI STONE(0)	(0) SILT CO' SILT-HEAVY(-2) N(0) X SILT-NORM(0)	BSTRATE SCORE 20 VER (one) SILT-MOD(-1) SILT-FREE(1) Edness (check one) MODERATE(-1) NONE(1)
UNDERCU	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	X ROOTWADS(1) AQUA	DWS(1) ATIC MACROPHYTES(1) S OR WOODY DEBRIS(1		NT (Check only one or C EXTENSIVE >7 X MODERATE 25 SPARSE 5-25% NEARLY ABSE	-75%(7) o(3)
3) CHANNE SINUOSITY HIGH(4) MODERATI X LOW(2) NONE(1) COMMEN	E(3) DEVELOPME EXCELLENT(7) GOOD(5) FAIR(3) POOR(1)		STABII HIGH(X MODE	LITY 33) RATE(2)	MODIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL MO	IMPOUND ISLAND LEVEED BANK SHAPING
River Right RIPARIAN L R (per WIDE MOD NARI	Looking Downstream WIDTH (per bank) bank) =>150ft.(4) ERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	EROSION: (Check ONE box or Ch EROSION/RUNOFF-FL L R (most predomina FOREST, SWAMP(3 OPEN PASTURE/RO RESID.,PARK,NEW FENCED PASTURE(OODPLAIN QUALIT ant per bank) L)) ww CROP(0) FIELD(1)		RIAL(0)	RIPARIAN SCORE NK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
5) POOL/G	LIDE AND RIFFLE/RUN (PTH (Check 1)) ol=0)(0)	MORPHOLOGY (Check 1) X POOL WIDTH>RIFFLE WIDTH(1 POOL WIDTH <riffle td="" width(0)<=""><td>)</td><td>POOL/RUN/RIFFLE TORRENTIAL(-1) X FAST(1) X MODERATE(1) X SLOW(1)</td><td>X EDDIES(1) INTERSTITIAL(-</td><td>1)</td></riffle>)	POOL/RUN/RIFFLE TORRENTIAL(-1) X FAST(1) X MODERATE(1) X SLOW(1)	X EDDIES(1) INTERSTITIAL(-	1)
GENERALI GENERALI GENERALI COMMEN	_Y >4 in. MAX.<20 in.(4) _Y >4 in. MAX.<20 in.(3) _Y 2-4 in.(1) _Y <2 in.(Riffle=0)(0)	X STABLE (e.g., Cobbi MOD. STABLE (e.g., UNSTABLE (Gravel, NO RIFFLE(0)	e,Boulder)(2) Pea Gravel)(1) Sand)(0)	EXTE MOD LOW	(1)	⊒'

STREAM:	East Fork White R	iver RIVER MILE	85.1	DATE:	9/15/2003	QHEI SCORE	48
TYPE BLDE BOUL COBL HARRI X X MUCL	POOL RIFFLE RISLAB(10) X LDER(9) X BLE(8) DPAN(4) K/SILT(2) X MBER OF SUBSTRATE TYPES: re sludge that originates from poin	Substrate Type Boxes: Check a POOL GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) X 34(2) 44(0) Assources: score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a POOL ASSOURCE: Score is based on natural substrate Type Boxes: Check a pool ASSOURCE: Score is based on natural substrate Type Boxes: Check a pool ASSOURCE: Score is based on natural substrate Type Boxes: Check a pool ASSOURCE: Score is based on natural substrate Type Boxes: Check a pool ASSOURCE: Score is based o	RIFFLE SUBS LIMES X TILLS(SAND SHALE COAL	TRATE ORIGIN (2 TONE(1) X RIP/RAF 1) HARDPA	SILT CO X SILT-HEAVY(-2) SILT-NORM(0) SILT-NORM(0)	BSTRATE SCORE VER (one) SILT-MOD(-1) SILT-FREE(1) edness (check one) MODERATE(-1) NONE(1)	3
UNDERCU X OVERHAN	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	н	WS(1) TIC MACROPHYTES(1) OR WOODY DEBRIS(1		NT (Check only one or of EXTENSIVE >7 X MODERATE 28 SPARSE 5-259 NEARLY ABSE	75%(11) 5-75%(7) 6(3)	
3) CHANNE SINUOSITY HIGH(4) MODERATI LOW(2) X NONE(1) COMMEN	E(3) DEVELOPME EXCELLENT(7) GOOD(5) FAIR(3) X POOR(1)		X HIGH(: MODE	LITY B) RATE(2)	MODIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL MO	IMPOUND ISLAND LEVEED BANK SHAPING	11
River Right RIPARIAN L R (per WIDE X X MOD NARI	Looking Downstream WIDTH (per bank) bank) =>150ft.(4) ERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	EROSION/RUNOFF-FLC L R (most predominal FOREST, SWAMP(3) X X OPEN PASTURE/ROI RESID.,PARK,NEW F FENCED PASTURE(1	DODPLAIN QUALITION (DODPLAIN QUALITION) N CROP(0) IIELD(1)		TRIAL(0) X ELD(2) EE(1)	RIPARIAN SCORE NK EROSION R (per bank) X NONE OR LITTLE(3 MODERATE(2) HEAVY OR SEVER	3)
•) ol=0)(0)	MORPHOLOGY (Check 1) POOL WIDTH-RIFFLE WIDTH(1) POOL WIDTH-RIFFLE WIDTH(0)	NO POOL = 0	POOL/RUN/RIFFL TORRENTIAL(-1) FAST(1) MODERATE(1) X SLOW(1)	E CURRENT VELOCITY X EDDIES(1) INTERSTITIAL(-1)	
GENERALL GENERALL GENERALL COMMEN	_Y >4 in. MAX.>20 in.(4) _Y >4 in. MAX.<20 in.(3) _Y 2-4 in.(1) _Y <2 in.(Riffle=0)(0)	RIFFLE/RUN SUBSTE STABLE (e.g., Cobble MOD. STABLE (e.g., F UNSTABLE (Gravel, S X NO RIFFLE(0)	Boulder)(2) Pea Gravel)(1) sand)(0)	EXT MOD LOW	DERATE(0) X NO	NE(2) D RIFFLE(0)	
GRADIEI	NT (FEET/MILE)(10):	0 % POOL 10)0	E '	% Run GR.	ADIENT SCORE	6

STREAM:	East Fork White	River RI	/ER MILE	94.3	DATE:	9/24/2003	QHEI SCORE 59.5
TYPE BLDE BOUL COBI HARRI MUC TOTAL NUM	RATE: (Check ONLY TV POOL REP/SLAB(10) LDER(9) BLE(8) DPAN(4) K/SILT(2) MBER OF SUBSTRATE TYPE rer sludge that originates from TS:	X	POOL F AVEL(7) X ND(6) X DROCK(5) TRITUS(3) X TIFIC(0) X <4(0)	LIME X TILLS SANI SHAL	STRATE ORIGIN STONE(1) X RIP/R	AP(0) SILT-NORM(0) SILT-NORM(0)	JBSTRATE SCORE 14 DVER (one) X SILT-MOD(-1) SILT-FREE(1) dedness (check one) X MODERATE(-1) NONE(1)
UNDERCU	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	PE(Check all that approved the control of the contr	OXBOWS((1) MACROPHYTES(1 WOODY DEBRIS()	OUNT (Check only one or EXTENSIVE > X MODERATE 2 SPARSE 5-25 NEARLY ABSI	5-75%(7) %(3)
3) CHANNE SINUOSITY HIGH(4) MODERATI LOW(2) X NONE(1) COMMEN	EXCELLEN GOOD(5) FAIR(3) X POOR(1)	MENT CHAN IT(7) X NC RE	INELIZATION	STAB HIGH X MOD LOW	ILITY (3) ERATE(2)	MODIFICATION/OTH SNAGGING RELOCATION X CANOPY REMOVAL DREDGING ONE SIDE CHANNEL M	IMPOUND ISLAND LEVEED BANK SHAPING
River Right RIPARIAN L R (per WIDE X X MOD NARI	E>150ft.(4) IERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	EROSION L R (M X FO	ONE box or Check //RUNOFF-FLOOE oost predominant p REST, SWAMP(3) EN PASTURE/ROW C SID.,PARK,NEW FIELD NCED PASTURE(1)	DPLAIN QUALI er bank) L ROP(0)	. , ,	BA L X STRIAL(0) X FIELD(2) AGE(1) L C C C C C C C C C	RIPARIAN SCORE 7.5 ANK EROSION R (per bank) X NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
	ol=0)(0)	MORPHOLOG POOL WIDTH=		POOL = 0	POOL/RUN/RIFF TORRENTIAL(-1) FAST(1) X MODERATE(1) X SLOW(1)	ELE CURRENT VELOCIT X EDDIES(1) INTERSTITIAL INTERMITTEN	(-1)
GENERALI GENERALI GENERALI COMMEN	LY >4 in. MAX.>20 in.(4) LY >4 in. MAX.<20 in.(3) LY 2-4 in.(1) LY <2 in.(Riffle=0)(0)	ST MC UN X NC	.E/RUN SUBSTRAT ABLE (e.g., Cobble,Bou DD. STABLE (e.g., Pea STABLE (Gravel, Sand RIFFLE(0) OOL 10	ulder)(2) Gravel)(1)	E;	ODERATE(0) X N	RIFFLE SCORE 0 S NE(2) O RIFFLE(0) ADJENT SCORE 6

STREAM:	East Fork White	e River	RIVER MILE	106.4	DATE:	9/24/2003	QHEI SCORE 72
TYPE BLDEF BOULE COBBI HARDI MUCK TOTAL NUMBE	PAN(4) SILT(2) SER OF SUBSTRATE TYPI sludge that originates from	X X X X X X X X X X X X X X X X X X X	GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) <4(0)	X X LIM X X TIL SA SH	BSTRATE ORIGIN	(all) SILT CC RAP(0) SILT-HEAVY(-2) DPAN(0) X SILT-NORM(0)	JBSTRATE SCORE 15 VER (one) SILT-MOD(-1) SILT-FREE(1) dedness (check one) X MODERATE(-1) NONE(1)
UNDERCUT OVERHANG	BANKS(1) ING VEGETATION(1) (IN SLOW WATER)(1)	YPE(Check all the X DEEP PO X ROOTWA X BOULDER	OLS(2) OXBO	WS(1) TIC MACROPHYTES OR WOODY DEBRI	S(1)	DUNT (Check only one or EXTENSIVE > X MODERATE 2 X SPARSE 5-25 NEARLY ABSI	5-75%(7) %(3)
3) CHANNEL SINUOSITY HIGH(4) MODERATE X LOW(2) NONE(1)	X FAIR(3) POOR(1)	PMENT C	E per Category or C HANNELIZATION NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO REC	STA HIC X MC	ERAGE)(20) BILITY SH(3) DDERATE(2) W(1)	MODIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL M	IMPOUND X ISLAND LEVEED BANK SHAPING
River Right L RIPARIAN V L R (per L X WIDE> X NARRO	-150ft.(4) RATE 30-150 ft.(3) DW 15-30 ft.(2) NARROW 3-15 ft.(1)	EROS L F	Ck ONE box or Che	OODPLAIN QUA nt per bank) L V CROP(0)	. , ,	JSTRIAL(0) X PFIELD(2) AGE(1)	RIPARIAN SCORE 6.5 ANK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) X HEAVY OR SEVERE(1)
,	** *	MORPHOL X POOL WIE	.) _OGY (Check 1) DTH>RIFFLE WIDTH(2) DTH=RIFFLE WIDTH(1) DTH <riffle td="" width(0)<=""><td>NO POOL = 0</td><td>POOL/RUN/RIF TORRENTIAL(-1 X FAST(1) X MODERATE(1) X SLOW(1)</td><td>FLE CURRENT VELOCIT X EDDIES(1) INTERSTITIAL INTERMITTEN</td><td>(-1)</td></riffle>	NO POOL = 0	POOL/RUN/RIF TORRENTIAL(-1 X FAST(1) X MODERATE(1) X SLOW(1)	FLE CURRENT VELOCIT X EDDIES(1) INTERSTITIAL INTERMITTEN	(-1)
GENERALLY GENERALLY GENERALLY COMMENT	/ >4 in. MAX.>20 in.(4) / >4 in. MAX.<20 in.(3) / 2-4 in.(1) / <2 in.(Riffle=0)(0)	×	RIFFLE/RUN SUBSTF STABLE (e.g., Cobble MOD. STABLE (e.g., F UNSTABLE (Gravel, S NO RIFFLE(0) % POOL 4	Boulder)(2) Pea Gravel)(1) and)(0)	X L	MODERATE(0) N	RIFFLE SCORE 6.5 S NE(2) O RIFFLE(0) ADJUST SCORE 8

1) SUBSTRATE (Check ONLY Two Substrate Type Boxes: Check all types present)(20) SUBSTRATE SOCRE [12] DOC. REFLE SUBSTRATE ORIGIN (all) SILT COVER (one) SULT FREE(II) SULT FREE(II)	STREAM:	East Fork White Riv	er RIVER MILE	119.6	DATE:	9/17/2003	QHEI SCORE 58.5
TYPE(Check all that apply)	TYPE BLDE BOUL COBE HARE TOTAL NUM NOTE: (Igno	POOL RIFFLE ER/SLAB(10) DER(9) BLE(8) DPAN(4) K/SILT(2) MBER OF SUBSTRATE TYPES: re sludge that originates from point	POOL X GRAVEL(7) X SAND(6) X BEDROCK(5) DETRITUS(3) ARTIFIC(0) >4(2) X <4(0)	RIFFLE SUBST LIMEST X TILLS(1 SANDS SHALE(COAL F	RATE ORIGIN (2 ONE(1) RIP/RAF) HARDPA TONE(0)	all) SILT CO 2(0) SILT-HEAVY(-2) N(0) SILT-NORM(0) Extent of Embedd EXTENSIVE(-2)	VER (one) X SILT-MOD(-1) SILT-FREE(1) edness (check one) X MODERATE(-1)
SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY MODIFICATION/OTHER HIGH(s) RECOVERED(s) RECENT OR NO RECOVERY(s) DREDGING BANK SHAPING ONE SIDE CHANNEL MODIFICATION COMMENTS: 4) RIPARIAN ZONE AND BANK EROSION: (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE 3.5 RIPARIAN WIDTH (per bank) EROSION/RUNOEF-FLOODPLAIN QUALITY BANK EROSION L R (per bank) L R (most predominant per bank) L R (per bank) L R (per bank) NONE on HIPARIAN STABLE RESOLORATION RESOLUTION R	UNDERCU OVERHANG X SHALLOWS	TYPE(CT BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	X DEEP POOLS(2) OXBOWS X ROOTWADS(1) AQUATIC	MACROPHYTES(1)	AMOU	EXTENSIVE >7 X MODERATE 25 SPARSE 5-259	Check 2 and AVERAGE) 75%(11) 75-75%(7) 6(3)
River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) NONE OR LITTLE(3) NONE OR LITTLE(4) NOR LITTLE(4) N	SINUOSITY HIGH(4) MODERATI X LOW(2) NONE(1)	DEVELOPMEN EXCELLENT(7) GOOD(5) X FAIR(3) POOR(1)	T CHANNELIZATION X NONE(6) RECOVERED(4) RECOVERING(3)	STABILI HIGH(3) MODER X LOW(1)	TY ATE(2)	SNAGGING RELOCATION CANOPY REMOVAL DREDGING	IER IMPOUND ISLAND LEVEED BANK SHAPING
MAX. DEPTH (Check 1) MORPHOLOGY (Check 1) POOL/RUN/RIFFLE CURRENT VELOCITY (Check all that Apply) TORRENTIAL(-1) POOL WIDTH>RIFFLE WIDTH(2) TORRENTIAL(-1) FAST(1) INTERSTITIAL(-1) NOMERATE(1) NOMERATE(1) RIFFLE SCORE RIFFLE/RUN DEPTH GENERALLY >4 in. MAX.>20 in.(4) MORPHOLOGY (Check 1) POOL/RUN/RIFFLE CURRENT VELOCITY (Check all that Apply) TORRENTIAL(-1) FAST(1) NOMERATE(1) INTERMITTENT(-2) X SLOW(1) RIFFLE/RUN SUBSTRATE RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EMBEDDEDNESS EXTENSIVE(-1) NONE(2)	RIVER RIGHT RIPARIAN L R (per MOD X X NARR VERV NONI	Looking Downstream WIDTH (per bank) bank) =>150ft.(4) ERATE 30-150 ft.(3) ROW 15-30 ft.(2) / NARROW 3-15 ft.(1) E(0)	EROSION/RUNOFF-FLOO L R (most predominant process, swamp(3) X X OPEN PASTURE/ROW (1) RESID.,PARK,NEW FIEL	DPLAIN QUALITY Der bank) L F	((per bank) URBAN OR INDUS' SHURB OR OLD FI CONSERV. TILLAG	ITRIAL(0) ELD(2) E(1) X	NK EROSION R (per bank) NONE OR LITTLE(3) X MODERATE(2)
RIFFLE/RUN DEPTH GENERALLY >4 in. MAX.>20 in.(4) RIFFLE/RUN SUBSTRATE STABLE (e.g., Cobble,Boulder)(2) EXTENSIVE(-1) NONE(2)	MAX. DEF X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Poo	PTH (Check 1)) i=0)(0)	MORPHOLOGY (Check 1) POOL WIDTH>RIFFLE WIDTH(2) X POOL WIDTH=RIFFLE WIDTH(1)		TORRENTIAL(-1) FAST(1) MODERATE(1)	EDDIES(1) INTERSTITIAL(Y (Check all that Apply) -1)
GENERALLY 2-4 in.(1) GENERALLY <a %="" (feet="" (gravel,="" 0="" 1.2="" 10="" 10<="" 6)="" 90="" comments:="" gradient="" in.(riffle="0)(0)" mile)(10):="" no="" pool="" riffle="" riffle(0)="" run="" sand)(0)="" score="" td="" unstable="" x=""><td>GENERALL GENERALL GENERALL COMMEN</td><td>Y >4 in. MAX.>20 in.(4) Y >4 in. MAX.<20 in.(3) Y 2-4 in.(1) Y <2 in.(Riffle=0)(0) TS:</td><td>STABLE (e.g., Cobble, Bo MOD. STABLE (e.g., Pea UNSTABLE (Gravel, Sand X NO RIFFLE(0)</td><td>ulder)(2) Gravel)(1) d)(0)</td><td>EXT MODE LOW</td><td>ENSIVE(-1) NO DERATE(0) X NO NO</td><td>S NE(2) D RIFFLE(0)</td>	GENERALL GENERALL GENERALL COMMEN	Y >4 in. MAX.>20 in.(4) Y >4 in. MAX.<20 in.(3) Y 2-4 in.(1) Y <2 in.(Riffle=0)(0) TS:	STABLE (e.g., Cobble, Bo MOD. STABLE (e.g., Pea UNSTABLE (Gravel, Sand X NO RIFFLE(0)	ulder)(2) Gravel)(1) d)(0)	EXT MODE LOW	ENSIVE(-1) NO DERATE(0) X NO	S NE(2) D RIFFLE(0)

STREAM:	East Fork White	River RIVER I	MILE129	0.7 DATE	9/16/2003	QHEISCORE 63
TYPE BLDE BOUL COBI HARRI MUC TOTAL NUM	POOL R ER/SLAB(10) X LDER(9) BLE(8) DPAN(4) K/SILT(2) X MBER OF SUBSTRATE TYPE re sludge that originates from	X GRAVEL X SAND(6) BEDROC DETRITU ARTIFIC(POOL RIFFLE (7) X X (K(5)	SUBSTRATE OR LIMESTONE(1)	IGIN (all) RIP/RAP(0) HARDPAN(0) SILT-HEAVY(-2) SILT-NORM(0)	SUBSTRATE SCORE 13 OVER (one) X SILT-MOD(-1) SILT-FREE(1) Idedness (check one) MODERATE(-1) NONE(1)
UNDERCU	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	PE(Check all that apply) X DEEP POOLS(2) ROOTWADS(1) X BOULDERS(1)	OXBOWS(1) AQUATIC MACROF X LOGS OR WOODY	PHYTES(1)	AMOUNT (Check only one of EXTENSIVE X MODERATE SPARSE 5-2 NEARLY AB:	>75%(11) 25-75%(7)
3) CHANNE SINUOSITY HIGH(4) MODERATI LOW(2) NONE(1) COMMENT	E(3) DEVELOPI EXCELLEN GOOD(5) X FAIR(3) POOR(1)	T(7) X NONE(6) RECOVE	ZATION RED(4)	nd AVERAGE)(20) STABILITY HIGH(3) MODERATE(2) X LOW(1)	MODIFICATION/OT SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL I	IMPOUND ISLAND LEVEED BANK SHAPING
River Right RIPARIAN L R (per X wide X Mod	Looking Downstream WIDTH (per bank) bank) > bank) E>150ft.(4) ERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	X FOREST X OPEN P. RESID.,F	NOFF-FLOODPLAIN oredominant per bank SWAMP(3) ASTURE/ROW CROP(0) PARK,NEW FIELD(1) PASTURE(1)	I QUALITY () L R (per banl URBAN OF SHURB OF CONSERV	, , , <u>E</u>	RIPARIAN SCORE 7 BANK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
	ol=0)(0)	MORPHOLOGY (C POOL WIDTH>RIFFL X POOL WIDTH <riffl pool="" td="" width<riffl<=""><td>E WIDTH(2) E WIDTH(1)</td><td></td><td>INTERSTITIA</td><td>L(-1)</td></riffl>	E WIDTH(2) E WIDTH(1)		INTERSTITIA	L(-1)
GENERALI GENERALI GENERALI COMMEN	LY >4 in. MAX.>20 in.(4) LY >4 in. MAX.<20 in.(3) LY 2-4 in.(1) LY <2 in.(Riffle=0)(0)	STABLE MOD. ST) % RIFFLE 0	MODERATE(0) X LOW(1)	RIFFLE SCORE 0 SS ONE(2) NO RIFFLE(0) RADIENT SCORE 10

STREAM: East Fork White River RIVER MILE 136.9 DATE: 9/16/2003 QHEI SCORE	64
1) SUBSTRATE: (Check ONLY Two Substrate Type Boxes: Check all types present)(20) SUBSTRATE SCORE TYPE POOL RIFFLE POOL RIFFLE SUBSTRATE ORIGIN (all) BLDER/SLAB(10) BULDER(9) XX SAND(6) XX XX TILLS(1) HARDPAN(0) SILT-HEAVY(-2) XX	14
2) INSTREAM COVER: (20) TYPE(Check all that apply) UNDERCUT BANKS(1) OVERHANGING VEGETATION(1) X BOULDERS(1) X BOULDERS(1) X BOULDERS(1) X BOULDERS(1) COMMENTS: COVER SCORE AMOUNT (Check only one or Check 2 and AVERACE 2 and AVERA	
3) CHANNEL MORPHOLOGY: (Check ONLY ONE per Category or Check 2 and AVERAGE)(20) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH(4) EXCELLENT(7) MODERATE(3) GOOD(5) RECOVERED(4) NONE(1) POOR(1) RECENT OR NO RECOVERY(1) MODIFICATION/OTHER SNAGGING MODERATE(2) RELOCATION ISLAND CANOPY REMOVAL LEVEED BANK SHAPING ONE SIDE CHANNEL MODIFICATION ONE SIDE CHANNEL MODIFICATION	12
4) RIPARIAN ZONE AND BANK EROSION: (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE RIVER Right Looking Downstream RIPARIAN WIDTH (per bank) L R (most predominant per bank) L R (per bank) NONE OR LITTLE(3) X MODERATE(2) HEAVY OR SEVER CONSERV. TILLAGE(1) NONE(0) COMMENTS:	
5) POOL/GLIDE AND RIFFLE/RUN QUALITY (12) MAX. DEPTH (Check 1) MORPHOLOGY (Check 1) POOL WIDTH>RIFFLE WIDTH(2) 2.44 ft.(4) 1.2-2.4 ft.(2)	
RIFFLE/RUN DEPTH GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY 2-4 in.(1) GENERALLY 2-4 in.(1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS: 6) GRADIENT (FEET/MILE)(10): 1.2 RIFFLE/RUN EMBEDDEDNESS EXTENSIVE(-1) NONE(2) MOD. STABLE (e.g., Pea Gravel)(1) UNSTABLE (e.g., Pea Gravel)(1) UNSTABLE (Gravel, Sand)(0) LOW(1) STABLE (e.g., Pea Gravel)(1) UNSTABLE (Gravel, Sand)(0) LOW(1)	0

STREAM: East Fork White River RIVER MILE 146.2 DATE: 9/15/2003 QHEI SCORE 6
1) SUBSTRATE: (Check ONLY Two Substrate Type Boxes: Check all types present)(20) SUBSTRATE SCORE 1 TYPE POOL RIFFLE POOL RIFFLE SUBSTRATE ORIGIN (all) BLDER/SLAB(10) SILT COVER (one) LIMESTONE(1) RIP/RAP(0) SILT-HEAVY(-2) SILT-HEAVY(-2) SILT-MOD(-1) SILT-HEAVY(-2) SILT-MOD(-1) SILT-FREE(1) SANDSTONE(0) Extent of Embeddedness (check one) HARDPAN(4) MUCK/SILT(2) TOTAL NUMBER OF SUBSTRATE TYPES: 2-4(2) X 44(0) NOTE: (Ignore sludge that originates from point sources: score is based on natural substrates) COMMENTS:
2) INSTREAM COVER: (20) TYPE(Check all that apply) UNDERCUT BANKS(1) OVERHANGING VEGETATION(1) X SHALLOWS (IN SLOW WATER)(1) COMMENTS: COVER SCORE AMOUNT (Check only one or Check 2 and AVERAGE EXTENSIVE >75%(11) X MODERATE 25-75%(7) SPARSE 5-25%(3) NEARLY ABSENT <5%(1)
3) CHANNEL MORPHOLOGY: (Check ONLY ONE per Category or Check 2 and AVERAGE)(20) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH(4) EXCELLENT(7) X NONE(6) NODERATE(3) GOOD(5) X LOW(2) NONE(1) POOR(1) RECOVERING(3) RECOVERING(3) RECOVERING(3) RECOVERY(1) RECOVERY(1) ONE SIDE CHANNEL MODIFICATION ONE SIDE CHANNEL MODIFICATION ONE SIDE CHANNEL MODIFICATION ONE SIDE CHANNEL MODIFICATION
4) RIPARIAN ZONE AND BANK EROSION: (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE (Check ONE box or Check 2 and AVERAGE per bank) (10) RIPARIAN SCORE (Check ONE box or Check 2 and AVERAGE per bank) (10) BANK EROSION L R (per bank) L R (per bank) L R (per bank) NONE OR LITTLE(3) MINING/CONSTRUCTION(0) COMMENTS:
5) POOL/GLIDE AND RIFFLE/RUN QUALITY (12) MAX. DEPTH (Check 1) X > 4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2)
RIFFLE/RUN DEPTH RIFFLE/RUN SUBSTRATE GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY >4 in. (1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS: RIFFLE/RUN SUBSTRATE RIFFLE/RUN EMBEDDEDNESS RIFFLE/RUN EMBEDDEDNESS EXTENSIVE(-1) NONE(2) X NO RIFFLE(0) LOW(1) AND RIFFLE(0) COMMENTS: 6) GRADIENT (FEET/MILE)(10): 1.3 % POOL 20 % RIFFLE 0 % RIJN 80 GRADIENT SCORE 10

STREAM: East Fork White	e River RIVER MILE	154.5	DATE: 9/24/2	QHEISCORE 75
TYPE POOL IN BULDER(9) COBBLE(8) HARDPAN(4) MUCK/SILT(2) TOTAL NUMBER OF SUBSTRATE TYPE NOTE: (Ignore sludge that originates from	X X SAND(6) X X BEDROCK(5) DETRITUS(3) ARTIFIC(0)	X LIMESTONE X LIMESTONE X ILLS(1) SANDSTONE SHALE(-1) COAL FINES	(1) RIP/RAP(0) SILT-HEA HARDPAN(0) X SILT-NOR Extent of E EXTENSI (-2) SPARSE(M(0) SILT-FREE(1) mbeddedness (check one) VE(-2) MODERATE(-1)
2) INSTREAM COVER: TY UNDERCUT BANKS(1) OVERHANGING VEGETATION(1) SHALLOWS (IN SLOW WATER)(1) COMMENTS:	H	VS(1) IC MACROPHYTES(1) DR WOODY DEBRIS(1)	X MODE SPAR	COVER SCORE 13 one or Check 2 and AVERAGE) NSIVE >75%(11) ERATE 25-75%(7) SE 5-25%(3) LY ABSENT <5%(1)
DEVELOR DEVELOR EXCELLE		STABILITY HIGH(3) MODERATE(LOW(1) DVERY(1)	MODIFICATIO SNAGGING RELOCATION CANOPY REMO DREDGING	IMPOUND ISLAND
River Right Looking Downstream RIPARIAN WIDTH (per bank) L R (per bank) WIDE>150ft.(4) X MODERATE 30-150 ft.(3) NARROW 15-30 ft.(2) VERY NARROW 3-15 ft.(1) NONE(0)	EROSION: (Check ONE box or Check ONE box	ODPLAIN QUALITY It per bank) L R (per bank) L R (per bank) L R (per bank) R (per b	er bank) BAN OR INDUSTRIAL(0) RUB OR OLD FIELD(2) INSERV. TILLAGE(1) NING/CONSTRUCTION(0)	BANK EROSION L R (per bank) NONE OR LITTLE(3) X MODERATE(2) HEAVY OR SEVERE(1)
5) POOL/GLIDE AND RIFFLE/RU MAX. DEPTH (Check 1) 2-4 ft.(6) 2.4-4 ft.(1) -1.2-2.4 ft.(2) -(1.2 ft.(1) -0.6 ft.(Pool=0)(0) COMMENTS: One riffle is p	MORPHOLOGY (Check 1) X POOL WIDTH>RIFFLE WIDTH(2) POOL WIDTH=RIFFLE WIDTH(1) POOL WIDTH <riffle td="" width(0)<=""><td>IO POOL = 0</td><td>DL/RUN/RIFFLE CURRENT VE RRENTIAL(-1) ST(1) INTER INTER</td><td>POOL SCORE 12 ELOCITY (Check all that Apply) ES(1) ESTITIAL(-1) EMITTENT(-2)</td></riffle>	IO POOL = 0	DL/RUN/RIFFLE CURRENT VE RRENTIAL(-1) ST(1) INTER INTER	POOL SCORE 12 ELOCITY (Check all that Apply) ES(1) ESTITIAL(-1) EMITTENT(-2)
RIFFLE/RUN DEPTH X GENERALLY >4 in. MAX.>20 in.(4) GENERALLY >4 in. MAX.<20 in.(3) GENERALLY 2-4 in.(1) GENERALLY <2 in.(Riffle=0)(0) COMMENTS: 6) GRADIENT (FEET/MILE):	RIFFLE/RUN SUBSTR X STABLE (e.g., Cobble, I MOD. STABLE (e.g., P UNSTABLE (Gravel, Sa NO RIFFLE(0) 0.9 % POOL 30	Boulder)(2) ea Gravel)(1) and)(0)	RIFFLE/RUN EMBEDD EXTENSIVE(-1) MODERATE(0) X SPARSE(1) 1 % Run 69	LOW(2) NO RIFFLE(0)

STREAM:	East Fork White	te River	RIVER MILE	162.2	DATE:	9/23/2003	QHEI SCORE 64.25
1) SUBSTR	RATE: (Check ONLY						JBSTRATE SCORE 12
BOUI COBI HARI MUC TOTAL NUM	ER/SLAB(10) LDER(9) BLE(8) DPAN(4) K/SILT(2) MBER OF SUBSTRATE TYE	ш '	GRAVEL(7) X SAND(6) X BEDROCK(5) DETRITUS(3) ARTIFIC(0) X <4(0)	X TILLS(1	TONE(0)	SILT-HEAVY(-2) AN(0) X SILT-NORM(0)	SILT-MOD(-1) SILT-FREE(1) ledness (check one) MODERATE(-1) LOW(1)
COMMEN	re sludge that originates fro	om point sources: score	e is based on natural sub	strates)			
UNDERCU	AM COVER: IT BANKS(1) GING VEGETATION(1)	TYPE(Check all th	OLS(2) OXBOV	VS(1) IC MACROPHYTES(1)	AMOL	JNT (Check only one or EXTENSIVE >	
X SHALLOW	S (IN SLOW WATER)(1)	BOULDER	RS(1) X LOGS (DR WOODY DEBRIS(1)		SPARSE 5-25 ⁶ NEARLY ABSE	%(3)
SINUOSITY HIGH(4) MODERAT X LOW(2) NONE(1)	EXCELLI	PPMENT ENT(7) PMENT PMENT	CHANNELIZATION NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO RECOVERING(3)	STABIL HIGH(3 X MODER LOW(1)	ITY) RATE(2)	MODIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL MA	MPOUND X ISLAND LEVEED BANK SHAPING
•	N ZONE AND BANK Looking Downstream	•	ck ONE box or Che	ck 2 and AVERAG	E per bank)		RIPARIAN SCORE 6.25
RIPARIAN L R (per X WIDE X X MOD	WIDTH (per bank) bank) =>150ft.(4) BERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	EROS	RION/RUNOFF-FLO R (most predominan FOREST, SWAMP(3) OPEN PASTURE/ROW RESID.,PARK,NEW FI FENCED PASTURE(1)	t per bank) L I	(per bank) URBAN OR INDUS SHRUB OR OLD F	STRIAL(0) JELD(2) SE(1)	NNK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
•	LIDE AND RIFFLE/R PTH (Check 1)	MORPHOL POOL WII	_OGY (Check 1) DTH>RIFFLE WIDTH(2) DTH=RIFFLE WIDTH(1)	IO POOL = 0	POOL/RUN/RIFFI TORRENTIAL(-1) FAST(1)	LE CURRENT VELOCIT X EDDIES(1) INTERSTITIAL(_
1.2-2.4 ft.(2 <1.2 ft.(1) <0.6 ft.(Pool	ol=0)(0)	POOL WII	DTH <riffle td="" width(0)<=""><td><u>]</u></td><td>MODERATE(1) SLOW(1)</td><td>INTERMITTEN</td><td>Γ(-2)</td></riffle>	<u>]</u>	MODERATE(1) SLOW(1)	INTERMITTEN	Γ(-2)
GENERALI GENERALI	LY >4 in. MAX.>20 in.(4) LY >4 in. MAX.<20 in.(3) LY 2-4 in.(1) LY <2 in.(Riffle=0)(0)	_ _ _ _	STABLE (e.g., Cobble, MOD. STABLE (e.g., P UNSTABLE (Gravel, Sa NO RIFFLE(0)	Boulder)(2) ea Gravel)(1)	EX.		RIFFLE SCORE 0 S W(2) O RIFFLE(0)
6) GRADIE	NT (FEET/MILE):	1.7	% POOL 40) % RIFFLE	0	% Run 60 GR	ADIENT SCORE 10

STREAM:	East Fork White	River	RIVER MILE	166.6	DATE:	9/18/2003	QHEISCORE 65
TYPE BLDE BOU COB HARR MUC TOTAL NUM	RATE: (Check ONLY TW POOL R POOL R REVISLAB(10) LDER(9) BLE(8) DPAN(4) IK/SILT(2) WBER OF SUBSTRATE TYPE pre sludge that originates from TS:	X	GRAVEL(7) SAND(6) BEDROCK(5) DETRITUS(3) ARTIFIC(0) X <4(0)	RIFFLE SUB LIME X TILL SAN SHA	STRATE ORIGIN ESTONE(1) RIP/R S(1) HARD IDSTONE(0) LE(-1) LL FINES(-2)	(all) SILT CO AP(0) SILT-HEAVY(-2) APAN(0) X SILT-NORM(0)	UBSTRATE SCORE 12 DVER (one) SILT-MOD(-1) SILT-FREE(1) dedness (check one) MODERATE(-1) LOW(1)
UNDERCU X OVERHAN	IT BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	PE(Check all that X DEEP POOL ROOTWADS BOULDERS	OXBON S(1) AQUAT	WS(1) TIC MACROPHYTES(OR WOODY DEBRIS	1)	OUNT (Check only one or EXTENSIVE > X MODERATE 2 SPARSE 5-25 NEARLY ABS	25-75%(7) %(3)
SINUOSITY HIGH(4) MODERAT X LOW(2) NONE(1)	EXCELLEN GOOD(5) X FAIR(3) POOR(1)	MENT CH	ANNELIZATION NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO REC	STAE HIGH X MODE LOW	BILITY H(3) DERATE(2) //(1)	MODIFICATION/OTI SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL M ting the flow in this	X IMPOUND ISLAND LEVEED BANK SHAPING IODIFICATION
RIVER RIGHT RIPARIAN L R (per X X WIDE MOD NARI VER X NON	E>150ft.(4) DERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	EROSIC L R	ON/RUNOFF-FLC (most predominar FOREST, SWAMP(3) OPEN PASTURE/ROV RESID.,PARK,NEW F FENCED PASTURE(1	OODPLAIN QUAL Int per bank) L IN CROP(0) IELD(1)	R (per bank) URBAN OR INDUSHRUB OR OLD X CONSERV. TILL/MINING/CONSTR	JSTRIAL(0) FIELD(2) AGE(1) RUCTION(0)	RIPARIAN SCORE 8 ANK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1) In the distribution of the period o
5) POOL/G	LIDE AND RIFFLE/RU PTH (Check 1) 2) DI=0)(0)	N QUALITY MORPHOLO POOL WIDT X POOL WIDT		NO POOL = 0		FLE CURRENT VELOCIT	POOL SCORE 10 Y (Check all that Apply)
GENERALI GENERALI GENERALI COMMEN	LY >4 in. MAX.>20 in.(4) LY >4 in. MAX.<20 in.(3) LY 2-4 in.(1) LY <2 in.(Riffle=0)(0)	X	FLE/RUN SUBSTE STABLE (e.g., Cobble, MOD. STABLE (e.g., F UNSTABLE (Gravel, S NO RIFFLE(0)	Boulder)(2) Pea Gravel)(1) and)(0)	E. M. S.	ODERATE(0) X N PARSE(1)	RIFFLE SCORE 0 SS SW(2) IO RIFFLE(0) RADIENT SCORE 10

STREAM:	East Fork White F	River RIVER M	ILE 177	.6 DAT	re:9/	17/2003	QHEI SCORE 61.5
•	RATE: (Check ONLY Two		Check all types pre	esent) SUBSTRATE O	RIGIN (all)	SUE SILT COV	SSTRATE SCORE 12
BOU COB HAR MUC TOTAL NUM	ER/SLAB(10) LDER(9) BLE(8) DPAN(4) K/SILT(2) MBER OF SUBSTRATE TYPES: re sludge that originates from po	GRAVEL(X SAND(6) BEDROCI DETRITUS ARTIFIC(0 X <4(0)) int sources: score is based or	X	LIMESTONE(1) X TILLS(1) SANDSTONE(0) SHALE(-1) COAL FINES(-2)	RIP/RAP(0) SI HARDPAN(0) X SI Exte	LT-HEAVY(-2) LT-NORM(0)	SILT-MOD(-1) SILT-FREE(1) dness (check one) MODERATE(-1) LOW(1)
2) INSTREA	AM COVER:	(Check all that apply)			AMOLINT (Chec	k only one or C	COVER SCORE 13
XOVERHAN	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	X DEEP POOLS(2) X ROOTWADS(1) BOULDERS(1)	OXBOWS(1) AQUATIC MACROP LOGS OR WOODY		X	EXTENSIVE >75 MODERATE 25- SPARSE 5-25% NEARLY ABSEN	(3) (3)
•	EL MORPHOLOGY: (Che		• •	,	MODIFIC	CATION/OTH	
HIGH(4) MODERAT X LOW(2) NONE(1)	EXCELLENT(NONE(6) RECOVE	RED(4)	STABILITY HIGH(3) X MODERATE(2) LOW(1)	SNAGG RELOC/ CANOP' DREDG	ATION Y REMOVAL	IMPOUND ISLAND LEVEED BANK SHAPING
COMMEN	TS:						
River Right	N ZONE AND BANK ER Looking Downstream	·			nk)		RIPARIAN SCORE 5.5
L R (per	=>150ft.(4) !ERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)	L R (most p) FOREST, OPEN PA RESID.,P/	OFF-FLOODPLAIN redominant per bank SWAMP(3) STURE/ROW CROP(0) ARK,NEW FIELD(1) PASTURE(1)	L R (per ba) URBAN (SHRUB (X X CONSER	INK) DR INDUSTRIAL(0) DR OLD FIELD(2) RV. TILLAGE(1) CONSTRUCTION(0)	L X	IK EROSION R (per bank) NONE OR LITTLE(3) MODERATE(2) HEAVY OR SEVERE(1)
,	LIDE AND RIFFLE/RUN		NO POOL		IN/DIFFLE CLIDDE	NT VELOCITY	POOL SCORE 10
X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Poc	ol=0)(0)	MORPHOLOGY (Ch	WIDTH(2) WIDTH(1)	TORREN FAST(1) X MODERA X SLOW(1)	ATE(1)	EDDIES(1) INTERSTITIAL(- INTERMITTENT(
RIFFLE/RU	N DEPTH	RIFFLE/RU	N SUBSTRATE		RIFFLE/RUN EM	BEDDEDNESS	RIFFLE SCORE 0
GENERALI GENERALI GENERALI	LY >4 in. (Riffle=0)(0)	STABLE (e.g., Cobble,Boulder)(2) BLE (e.g., Pea Gravel)(1 E (Gravel, Sand)(0))	EXTENSIVE(-1) MODERATE(0) SPARSE(1)	LOW	
6) GRADIE	NT (FEET/MILE):	1.9 % POOL	40 %	% RIFFLE () % Run	60 GRA	DIENT SCORE 10

STREAM:	East Fork White	River	RIVER MILE	189.1	DATE:	9/16/2003	QHEI SCORE 64
•	RATE: (Check ONLY Two		Boxes: Check all ty		ATE ORIGIN (al		UBSTRATE SCORE 13
BOUI COBI HARI MUC TOTAL NUM	ER/SLAB(10) LDER(9) BLE(8) DPAN(4) K/SILT(2) MBER OF SUBSTRATE TYPES re sludge that originates from p	X	GRAVEL(7)	LIMESTO X TILLS(1) SANDSTO SHALE(-1 COAL FIN	NE(1) RIP/RAP(HARDPAN DNE(0)	SILT-HEAVY(-2) SILT-NORM(0)	SILT-MOD(-1) SILT-FREE(1) dedness (check one) X MODERATE(-1) LOW(1)
2) INSTREA	AM COVER:	PE(Check all that	apply)		AMOUN	JT (Check only one or	COVER SCORE 13 Check 2 and AVERAGE)
XOVERHAN	T BANKS(1) GING VEGETATION(1) S (IN SLOW WATER)(1)	X DEEP POOL X ROOTWADS BOULDERS	OXBOWS S(1) AQUATIC	(1) MACROPHYTES(1) WOODY DEBRIS(1)	AWOON	EXTENSIVE > X MODERATE 2 SPARSE 5-25 NEARLY ABSI	.75%(11) :5-75%(7) %(3)
3) CHANNE	EL MORPHOLOGY: (Ch	eck ONLY ONE	per Category or Che	eck 2 and AVERAC	GE)		11
HIGH(4) MODERAT X LOW(2) NONE(1)	EXCELLENT	X 	ANNELIZATION NONE(6) RECOVERED(4) RECOVERING(3) RECENT OR NO RECOV	STABILIT HIGH(3) X MODERA LOW(1) ERY(1)		MODIFICATION/OTH SNAGGING RELOCATION CANOPY REMOVAL DREDGING ONE SIDE CHANNEL M	IMPOUND ISLAND LEVEED BANK SHAPING
COMMEN	TS:						
•	N ZONE AND BANK EF Looking Downstream	ROSION: (Check	ONE box or Check	2 and AVERAGE	per bank)		RIPARIAN SCORE 6
L R (per	=>150ft.(4) !ERATE 30-150 ft.(3) ROW 15-30 ft.(2) Y NARROW 3-15 ft.(1) E(0)		DN/RUNOFF-FLOOI (most predominant process, swamp(3) OPEN PASTURE/ROW C RESID.,PARK,NEW FIEL FENCED PASTURE(1)	per bank) L R X X	(per bank) URBAN OR INDUSTI SHRUB OR OLD FIE CONSERV. TILLAGE MINING/CONSTRUC	RIAL(0) X	ANK EROSION R (per bank) NONE OR LITTLE(3) X MODERATE(2) HEAVY OR SEVERE(1)
,	LIDE AND RIFFLE/RUN			POOL = 0			POOL SCORE 11
X >4 ft.(6) 2.4-4 ft.(4) 1.2-2.4 ft.(2) <1.2 ft.(1) <0.6 ft.(Poc	ol=0)(0)	POOL WIDT	OGY (Check 1) H>RIFFLE WIDTH(2) H=RIFFLE WIDTH(1) H <riffle td="" width(0)<=""><td>X</td><td>TORRENTIAL(-1) FAST(1) MODERATE(1) SLOW(1)</td><td>X EDDIES(1) INTERSTITIAL INTERMITTEN</td><td></td></riffle>	X	TORRENTIAL(-1) FAST(1) MODERATE(1) SLOW(1)	X EDDIES(1) INTERSTITIAL INTERMITTEN	
RIFFLE/RU	N DEPTH	RIF	FFLE/RUN SUBSTRAT	TE	RIFFLE	/RUN EMBEDDEDNES	RIFFLE SCORE 0
GENERALI GENERALI GENERALI	LY >4 in. MAX.>20 in.(4) LY >4 in. MAX.<20 in.(3) LY 2-4 in.(1) LY <2 in.(Riffle=0)(0)		STABLE (e.g., Cobble,Bo MOD. STABLE (e.g., Pea UNSTABLE (Gravel, Sand NO RIFFLE(0)	ulder)(2) Gravel)(1)	EXTE	NSIVE(-1)	W(2) IO RIFFLE(0)
6) GRADIE	NT (FEET/MILE):	2.2 %	POOL 25	% RIFFLE	0 %	6 Run 75 GR	RADIENT SCORE 10

DATE: 9/24/2003 STATION: RM 1.00 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	77	26.7	2.9 - 13.1	9.75	4.8
Spotted bass	52	18.1	2.3 - 12.5	12.52	6.1
Steelcolor shiner	19	6.6	1.8 - 2.9	0.08	*
Emerald shiner	18	6.3	1.6 - 3.4	0.11	0.1
Mississippi silvery minnow	16	5.6	2.1 - 2.5	0.06	*
Shortnose gar	15	5.2	16.0 - 24.2	17.40	8.5
Common carp	14	4.9	19.8 - 27.0	68.90	33.8
Channel catfish	12	4.2	8.0 - 20.4	18.78	9.2
Freshwater drum	10	3.5	9.9 - 14.9	12.00	5.9
White bass	8	2.8	4.3 - 13.1	4.63	2.3
Longear sunfish	7	2.4	2.0 - 4.7	1.08	0.5
Shorthead redhorse	6	2.1	14.2 - 18.7	10.99	5.4
Spotfin shiner	6	2.1	2.0 - 2.5	0.01	*
Blue sucker	5	1.7	22.2 - 26.2	24.78	12.2
Sauger	4	1.4	12.3 - 15.5	2.84	1.4
Flathead catfish	3	1.0	9.6 - 11.0	1.17	0.6
Goldeye	3	1.0	13.3 - 17.8	2.95	1.4
Longnose gar	3	1.0	26.8 - 35.5	10.90	5.3
Bluegill	2	0.7	1.6 - 1.8	0.01	*
River carpsucker	2	0.7	16.5 - 16.7	4.17	2.0
Bluntnose minnow	1	0.3	2.3	0.01	*
Black crappie	1	0.3	4.2	0.40	0.2
Grass pickerel	1	0.3	7.3	0.10	*
Orangespotted sunfish	1	0.3	1.9	0.01	*
Skipjack herring	1	0.3	7.8	0.12	*
Smallmouth bass	1	0.3	3.0	0.02	*
Total	288			203.79	

^{*} Less than 0.1%

^{**} Less than 0.1 pound

DATE: 9/24/2003 STATION: RM 1.00 Seine 2 Hauls

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Western mosquitofish	459	67.6	0.7 - 1.8	0.31	79.5
Spotfin shiner	114	16.8	0.4 - 1.3	0.02	5.1
Steelcolor shiner	43	6.3	0.4 - 1.3	**	*
Bluegill	29	4.3	0.6 - 1.4	0.02	5.1
Bluntnose minnow	26	3.8	0.6 - 1.4	0.01	2.6
Mississippi silvery minnow	6	0.9	1.4 - 2.5	0.01	2.6
Gizzard shad	2	0.3	3.3 - 3.5	0.02	5.1
* Less than 0.1%					
** Less than 0.1pound					
Total	679			0.39	100.0

DATE: 9/23/2003 STATION: RM 17.11 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	41	28.9	3.5 - 11.8	10.25	8.1
Freshwater drum	18	12.7	7.4 - 15.7	14.26	11.3
Emerald shiner	14	9.9	2.5 - 4.0	0.01	*
Spotted bass	10	7.0	2.5 - 9.7	1.51	1.2
Longear sunfish	8	5.6	2.5 - 5.0	0.29	0.2
Shortnose gar	8	5.6	19.7 - 22.2	8.63	6.8
Bluegill	5	3.5	3.7 - 7.3	0.48	0.4
Common carp	5	3.5	21.5 - 24.2	26.60	21.0
River carpsucker	5	3.5	6.9 - 17.9	6.84	5.4
Bigmouth buffalo	4	2.8	15.8 - 22.3	19.57	15.5
Goldeye	4	2.8	10.9 - 16.3	3.37	2.7
Blue sucker	3	2.1	24.4 - 26.2	15.50	12.3
Mooneye	3	2.1	5.7 - 10.2	0.62	0.5
Flathead catfish	2	1.4	17.7 - 18	4.11	3.3
Smallmouth buffalo	2	1.4	8.8 - 20.2	4.75	3.8
Steelcolor shiner	2	1.4	2.3 - 2.5	0.01	*
Channel catfish	1	0.7	12.8	0.52	0.4
Golden redhorse	1	0.7	17.8	2.56	2.0
Highfin carpsucker	1	0.7	10.0	0.37	0.3
Mississippi silvery minnow	1	0.7	3.7	0.01	*
Sauger	1	0.7	17.1	1.55	1.2
Shorthead redhorse	1	0.7	21.0	3.03	2.4
Skipjack herring	1	0.7	7.0	0.10	0.1
Spotted gar	1	0.7	23.3	1.45	1.1
Total	142			126.39	

^{*} Less than 0.1%

^{**} Less than 0.1 pound

DATE: 9/23/2003 STATION: RM 17.11 Seine 4 hauls

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Steelcolor shiner	26	54.2	0.6 - 2.1	0.02	25.0
Spotfin shiner	7	14.6	0.6 - 1.0	0.01	12.5
Mississippi silvery minnow	6	12.5	1.1 - 2.5	0.02	25.0
Emerald shiner	5	10.4	1.1 - 1.9	0.01	12.5
Bluntnose minnow	3	6.3	0.9 - 1.7	0.01	12.5
Channel catfish	1	2.1	2.8	0.01	12.5
Total	48			0.08	100.0

^{*} Less than 0.1%

^{**} Less than 0.1 pound

DATE: 6/14/2003 STATION: RM 26.14 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	115	50.0	3.5 - 11.9	26.50	20.7
Steelcolor shiner	21	9.1	1.8 - 3.3	0.13	0.1
Emerald shiner	15	6.5	1.8 - 4.3	0.19	0.1
Freshwater drum	13	5.7	7.8 - 17.4	8.41	6.6
Spotted bass	13	5.7	2.7 - 9.8	2.37	1.8
Longear sunfish	8	3.5	2.8 - 6.7	0.80	0.6
River carpsucker	8	3.5	11.6 - 16.8	14.86	11.6
Goldeye	6	2.6	10.1 - 13.8	3.23	2.5
Shortnose gar	6	2.6	20.2 - 23.0	7.92	6.2
Common carp	5	2.2	20.3 - 22.9	24.30	19.0
Flathead catfish	4	1.7	8.8 - 13.4	2.28	1.8
Dusky darter	2	0.9	2.1 - 3.5	0.01	*
Mooneye	2	0.9	8.8 - 9.2	0.54	0.4
Sauger	2	0.9	14.9 - 15.6	2.09	1.6
Smallmouth buffalo	2	0.9	18.7 - 28.4	14.82	11.6
Harlequin darter	1	0.4	2.1	0.01	*
Longnose gar	1	0.4	38.6	5.50	4.3
River redhorse	1	0.4	23.7	6.00	4.7
Shorthead redhorse	1	0.4	20.1	2.92	2.3
Shovelnose sturgeon	1	0.4	22.0	0.93	0.7
Silver lamprey	1	0.4	8.3	0.06	*
Smallmouth bass	1	0.4	7.9	0.22	0.2
Walleye	1	0.4	23.0	4.08	3.2
_					
_Total	230			128.17	

^{*} Less than 0.1%

^{**} Less than 0.1 pound

DATE: 6/14/2004 STATION: RM 26.14 Seine 4 Hauls

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Mississippi silvery minnow	88	59.9	08 - 2.5	0.37	74.0
Steelcolor shiner	34	23.1	0.05 - 2.2	0.04	8.0
Mimic shiner	9	6.1	0.8 - 1.8	0.01	2.0
Channel catfish	4	2.7	2.5 - 3.2	0.02	4.0
Spotfin shiner	4	2.7	0.05 - 1.5	0.02	4.0
Western mosquitofish	4	2.7	1.1 - 1.4	0.01	2.0
Emerald shiner	2	1.4	1.8 - 2.1	0.01	2.0
Sand shiner	1	0.7	1.9	0.01	2.0
Silverjaw minnow	1	0.7	2.0	0.01	2.0
Total	147			0.50	100.0

DATE: 6/14/2004 STATION: RM 40.88 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	117	47.8	6.6 - 14.2	27.25	16.8
Freshwater drum	19	7.8	7.3 - 18.0	19.30	11.9
Steelcolor shiner	16	6.5	1.7 - 2.5	0.06	*
Spotted bass	14	5.7	3.0 - 13.4	4.29	2.6
Mooneye	9	3.7	5.5 - 11.6	2.69	1.7
Mississippi silvery minnow	8	3.3	3.1 - 4.0	0.13	0.1
Emerald shiner	7	2.9	2.9 - 4.3	0.13	0.1
Smallmouth buffalo	6	2.4	15.1 - 29.6	28.75	17.7
Goldeye	5	2.0	13.2 - 16.1	5.41	3.3
Longear sunfish	5	2.0	3.2 - 5.1	0.33	0.2
Shorthead redhorse	5	2.0	15.8 - 17.3	8.75	5.4
River carpsucker	4	1.6	15.1 - 17.3	7.16	4.4
Channel catfish	3	1.2	9.8 - 12.0	0.96	0.6
Bluegill	3	1.2	1.8 - 3.3	0.05	*
Bigmouth buffalo	2	0.8	19.1 - 24.4	11.85	7.3
Flathead catfish	2	0.8	11.5 - 20.9	4.74	2.9
Longnose gar	2	0.8	23.2 - 43.0	9.97	6.1
River redhorse	2	0.8	23.0 - 25.4	10.75	6.6
Sauger	2	0.8	12.7 - 15.9	1.57	1.0
Smallmouth bass	2	0.8	2.7 - 12.1	0.87	0.5
Warmouth	2	0.8	3.2 - 4.2	0.07	*
White bass	2	0.8	11.1 - 11.7	1.34	0.8
Black crappie	1	0.4	7.1	0.20	0.1
Blue sucker	1	0.4	25.4	5.75	3.5
Common carp	1	0.4	22.9	5.50	3.4
Golden redhorse	1	0.4	7.5	0.17	0.1
Northern hog sucker	1	0.4	9.5	0.37	0.2
Quillback	1	0.4	18.0	2.55	1.6
Shortnose gar	1	0.4	24.0	1.40	0.9
Skipjack herring	1	0.4	10.2	0.30	0.2
Total	245			162.66	

^{*}Less than 0.1%

DATE: 6/14/2004 STATION: _ RM 40.88 Seine 4 Hauls

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Steelcolor shiner	230	50.8	1.3 - 3.2	0.36	32.7
Spotfin shiner	67	14.8	1.3 - 2.2	0.08	7.3
Channel catfish	63	13.9	1.6 - 3.5	0.28	25.5
Mississippi silvery minnow	53	11.7	1.2 - 3.4	0.19	17.3
Bluntnose minnow	14	3.1	1.0 - 2.7	0.05	4.5
Brook silverside	7	1.5	2.1 - 2.4	0.01	0.9
Emerald shiner	5	1.1	1.3 - 3.0	0.01	0.9
Mimic shiner	4	0.9	1.5 - 1.8	0.01	0.9
Eastern sand darter	2	0.4	2.0 - 2.1	0.01	0.9
Sand shiner	2	0.4	1.7 - 2.0	0.01	0.9
Blackstripe topminnow	1	0.2	1.8	0.01	0.9
Dusky darter	1	0.2	2.2	0.01	0.9
Quillback	1	0.2	4.1	0.03	2.7
Redear sunfish	1	0.2	3.3	0.02	1.8
Silver redhorse	1	0.2	3.0	0.01	0.9
Speckled chub	1	0.2	1.5	0.01	0.9
Total	453			1.10	

DATE: 6/14/2004 STATION: RM 42.07 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	40	23.3	6.4 - 12.6	13.66	12.2
Longear sunfish	26	15.1	2.5 - 5.1	1.25	1.1
Steelcolor shiner	23	13.4	1.7 - 3.3	0.10	0.1
Freshwater drum	21	12.2	7.4 - 25.7	32.65	29.1
Emerald shiner	19	11.0	2.7 - 4.0	0.18	0.2
Spotted bass	15	8.7	2.5 - 11.4	3.56	3.2
Channel catfish	6	3.5	10.1 - 17.0	5.22	4.7
Common carp	4	2.3	18.4 - 23.2	21.75	19.4
Flathead catfish	3	1.7	4.0 - 16.9	2.42	2.2
Smallmouth buffalo	3	1.7	17.4 - 23.1	13.30	11.9
Mooneye	2	1.2	10.9 - 11.1	1.04	0.9
River carpsucker	2	1.2	14.9 - 16.2	3.50	3.1
Bluegill	1	0.6	5.6	0.15	0.1
Bigmouth buffalo	1	0.6	19.6	4.25	3.8
Black buffalo	1	0.6	21.1	5.00	4.5
Chestnut lamprey	1	0.6	7.2	0.03	*
Dusky darter	1	0.6	2.7	0.01	*
Goldeye	1	0.6	15.4	1.20	1.1
Largemouth bass	1	0.6	7.8	0.22	0.2
Silver redhorse	1	0.6	18.2	2.55	2.3
Total	172			112.04	

^{*}Less than 0.1%

DATE: 6/14/2004 STATION: RM 42.07 Seine 4 Hauls

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin shiner	44	46.8	1.9 - 2.7	0.11	34.4
Steelcolor shiner	31	33.0	1.6 - 2.5	0.08	25.0
Bluegill	7	7.4	1.5 - 3.8	0.07	21.9
Bluntnose minnow	7	7.4	2.1 - 2.5	0.02	6.3
Emerald shiner	2	2.1	3.0 - 3.1	0.01	3.1
Johnny darter	1	1.1	2.3	0.01	3.1
Silverband shiner	1	1.1	1.9	0.01	3.1
Spotted bass	1	1.1	2.4	0.01	3.1
Total	94			0.32	

DATE: 9/25/03 STATION: RM 75.08 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard Shad	258	50.5	4.2-13.2	66.13	18.5
Longear Sunfish	44	8.6	2.4-6.1	2.64	0.7
Spotted Bass	23	4.5	3.1-13.2	8.71	2.4
Smallmouth Buffalo	22	4.3	14.3-23.8	84.39	23.6
River Carpsucker	21	4.1	8.7-16.3	21.57	6.0
Emerald Shiner	21	4.1	2.7-3.6	0.40	0.1
Channel Catfish	15	2.9	2.7-23.2	27.84	7.8
Freshwater Drum	15	2.9	7.7-21.7	22.63	6.3
Sauger	11	2.2	11.5-16.4	8.51	2.4
Smallmouth Bass	10	2.0	3.0-8.0	1.17	0.3
Steelcolor Shiner	10	2.0	1.5-3.3	0.06	0.0
Spotfin Shiner	9	1.8	2.0-2.6	0.04	0.0
Blue Sucker	5	1.0	23.6-27.3	28.50	8.0
Common Carp	4	0.8	20.3-26.8	28.38	7.9
Shortnose Gar	4	0.8	21.3-23.2	5.19	1.4
Shorthead Redhorse	4	0.8	3.9-16.4	3.37	0.9
Bluntnose Minnow	4	0.8	2.0-2.4	0.02	0.0
Bigmouth Buffalo	3	0.6	19.6-24.5	18.32	5.1
Longnose Gar	3	0.6	15.8-24.8	1.75	0.5
Highfin Carpsucker	3	0.6	7.9-9.1	0.98	0.3
_Logperch	3	0.6	5.7-6.0	0.22	0.1
Slenderhead Darter	3	0.6	2.7-3.0	0.02	0.0
Golden Redhorse	2	0.4	14.7-15.0	2.83	0.8
Flathead Catfish	2	0.4	14.4-17.1	2.80	0.8
Largemouth Bass	2	0.4	8.0-13.1	1.41	0.4
Black Buffalo	1	0.2	23.9	7.88	2.2
River Redhorse	1	0.2	23.4	5.38	1.5
Silver Redhorse	1	0.2	21.6	4.35	1.2
Black Redhorse	1	0.2	15	1.31	0.4
Black Crappie	1	0.2	9.4	0.49	0.1
Skipjack Herring	1	0.2	10.2	0.34	0.1
White Crappie	1	0.2	9.2	0.34	0.1
Bluegill	1	0.2	6.5	0.21	0.1
Brook Silverside	1	0.2	2.5	0.01	0.0
Spotted Darter	1	0.2	2.5	0.01	0.0
Total - Species	511	100.0		358.20	100.0

DATE: 9/25/03 STATION: RM 75.08 Seine

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin Shiner	118	53.4	0.6-2.7	0.17	50.0
Steelcolor Shiner	57	25.8	0.9-2.1	0.06	17.6
Emerald Shiner	15	6.8	0.7-2.6	0.01	2.9
Gizzard Shad	8	3.6	1.1-4.7	0.03	8.8
Brook Silverside	7	3.2	2.1-2.5	0.02	5.9
Bullhead Minnow	6	2.7	1.0-1.2	0.01	2.9
Mississippi Silvery Minnow	4	1.8	1.7-2.2	0.01	2.9
Longear Sunfish	3	1.4	0.6-1.4	0.01	2.9
Bluntnose Minnow	2	0.9	1.5	0.01	2.9
Golden Redhorse	1	0.5	2.0	0.01	2.9
Total - Species	221	100.0		0.34	100.0

DATE: 9/15/03 STATION: RM 85.1 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard Shad	85	40.3	2.5-9.4	3.74	1.9
Spotted Bass	23	10.9	2.7-12.8	8.57	4.3
Spotfin Shiner	20	9.5	2.0-3.0	0.12	0.1
Smallmouth Buffalo	16	7.6	8.8-39.3	96.63	48.6
Freshwater Drum	16	7.6	11.0-24.9	44.38	22.3
Bluegill	14	6.6	1.5-5.4	0.36	0.2
Channel Catfish	10	4.7	8.8-20.2	12.49	6.3
Bullhead Minnow	6	2.8	1.9-2.6	0.04	0.0
Longear Sunfish	5	2.4	2.9-3.5	0.12	0.1
Common Carp	4	1.9	22.3-26.2	29.94	15.1
Steelcolor Shiner	4	1.9	2.3-2.5	0.01	0.0
Flathead Catfish	2	0.9	13.8-14.1	1.85	0.9
Shorthead Redhorse	2	0.9	7.2	0.29	0.1
Blackstripe Topminnow	2	0.9	2.5	No weights	0.0
Black Crappie	1	0.5	7.3	0.20	0.1
Largemouth Bass	1	0.5	7.5	0.19	0.1
Total - Species	211	100.0		198.93	100.0

DATE: 9/15/03 STATION: RM 85.1 Seine

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Bullhead Minnow	119	56.7	0.7-2.7	0.25	61.0
Spotfin Shiner	47	22.4	0.8-2.6	0.05	12.2
Bluntnose Minnow	19	9.0	0.8-2.1	0.02	4.9
Brook Silverside	16	7.6	1.3-2.5	0.03	7.3
Striped Shiner	2	1.0	1.7-1.9	0.01	2.4
Ghost Shiner	2	1.0	1.6-1.8	0.01	2.4
Steelcolor Shiner	2	1.0	1.1-1.2	0.01	2.4
Spotted Bass	1	0.5	2.9	0.01	2.4
Mississippi Silvery Minnow	1	0.5	2.0	0.01	2.4
Longear Sunfish	1	0.5	1.5	0.01	2.4
Total - Species	210	100.0		0.41	100.0

DATE: 9/24/03 STATION: RM 94.3 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard Shad	162	31.9	2.6-12.2	15.50	7.5
Spotfin Shiner	75	14.8	1.3-2.8	0.26	0.1
Emerald Shiner	48	9.4	2.8-4.1	0.47	0.2
Steelcolor Shiner	47	9.3	1.3-3.7	0.21	0.1
Bullhead Minnow	44	8.7	1.7-2.9	0.20	0.1
Freshwater Drum	31	6.1	11.2-19.8	47.30	22.8
Channel Catfish	22	4.3	2.9-24.7	40.42	19.5
Spotted Bass	19	3.7	2.6-14.7	9.97	4.8
Longear Sunfish	14	2.8	2.3-5.4	0.57	0.3
Bluegill	8	1.6	2.8-7.8	0.88	0.4
River Redhorse	5	1.0	20.2-24.2	25.30	12.2
Bluntnose Minnow	4	0.8	2.1-2.5	0.02	0.0
Flathead Catfish	3	0.6	7.6-34.0	32.92	15.9
Chestnut Lamprey	3	0.6	8.6-8.7	0.13	0.1
Brook Silverside	3	0.6	1.4-2.4	0.01	0.0
Common Carp	2	0.4	23.1-25.6	15.51	7.5
Smallmouth Buffalo	2	0.4	15.5-17.7	5.47	2.6
River Carpsucker	2	0.4	16.0-19.1	5.24	2.5
Shorthead Redhorse	2	0.4	13.5-15.6	2.30	1.1
Largemouth Bass	2	0.4	3.1-16.0	2.04	1.0
Rainbow Darter	2	0.4	2.0	0.01	0.0
Golden Redhorse	1	0.2	15.3	1.63	0.8
Silver Redhorse	1	0.2	12.1	0.76	0.4
Redear Sunfish	1	0.2	6.1	0.13	0.1
Slenderhead Darter	1	0.2	2.9	0.01	0.0
Smallmouth Bass	1	0.2	2.7	0.01	0.0
Greenside Darter	1	0.2	2.6	0.01	0.0
Striped Shiner	1	0.2	2.1	0.01	0.0
Dusky Darter	1	0.2	1.9	0.01	0.0
Total - Species	508	100.0		207.30	100.0

DATE: 9/24/03 STATION: RM 94.3 Seine

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin Shiner	133	36.0	0.7-2.9	0.20	22.0
Bullhead Minnow	109	29.5	0.8-2.6	0.25	27.5
Steelcolor Shiner	58	15.7	1.2-2.4	0.07	7.7
Brook Silverside	20	5.4	1.9-2.7	0.05	5.5
Channel Catfish	16	4.3	2.1-3.2	0.09	9.9
Bluntnose Minnow	14	3.8	1.1-2.1	0.02	2.2
Gizzard Shad	7	1.9	3.7-4.7	0.13	14.3
Spotted Bass	7	1.9	2.5-3.0	0.05	5.5
Ghost Shiner	2	0.5	1.7-1.8	0.01	1.1
Bluegill	1	0.3	3.5	0.02	2.2
Rosyface Shiner	1	0.3	2.1	0.01	1.1
Redear Sunfish	1	0.3	2.1	0.01	1.1
Total - Species	369	100.0		0.91	100.0

DATE: 9/17/03 STATION: RM 104 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard Shad	73	31.6	6.9-13.8	17.99	5.2
Freshwater Drum	28	12.1	7.6-21.0	45.06	13.0
Smallmouth Buffalo	21	9.1	15.5-26.3	95.23	27.5
Spotted Bass	12	5.2	6.8-12.6	4.79	1.4
Emerald Shiner	12	5.2	3.0-3.5	0.11	0.0
Steelcolor Shiner	12	5.2	2.0-3.0	0.07	0.0
Bigmouth Buffalo	11	4.8	18.0-25.2	69.23	20.0
Blue Sucker	8	3.5	21.0-27.8	36.42	10.5
Slenderhead Darter	7	3.0	2.8-3.2	0.07	0.0
Shorthead Redhorse	6	2.6	16.1-20.6	12.63	3.6
Channel Catfish	6	2.6	12.4-22.7	11.12	3.2
Common Carp	4	1.7	19.3-22.8	21.55	6.2
Shortnose Gar	4	1.7	20.9-22.5	4.97	1.4
Longnose Gar	3	1.3	21.7-25.1	3.18	0.9
Flathead Catfish	3	1.3	12.3-16.5	2.89	0.8
Logperch	3	1.3	5.5-5.6	0.16	0.0
Longear Sunfish	3	1.3	3.4-3.7	0.10	0.0
Spotfin Shiner	3	1.3	2.4-3.4	0.02	0.0
River Carpsucker	2	0.9	14.7-15.2	2.82	0.8
Sauger	2	0.9	12.2-16.4	1.85	0.5
River Redhorse	1	0.4	26.6	7.31	2.1
Grass Carp	1	0.4	23.7	5.15	1.5
Goldeye	1	0.4	16.8	1.60	0.5
Silver Redhorse	1	0.4	14.1	1.15	0.3
Redear Sunfish	1	0.4	8.1	0.33	0.1
Skipjack Herring	1	0.4	10	0.29	0.1
Bluegill	1	0.4	6.5	0.18	0.1
Silver Lamprey	1	0.4	8.1	0.05	0.0
Total - Species	231	100.0		346.32	100.0

DATE: 9/17/03 STATION: RM 104 Seine

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin Shiner	100	84.0	0.6-2.4	0.16	76.2
Steelcolor Shiner	14	11.8	0.8-2.3	0.02	9.5
Emerald Shiner	3	2.5	1.6-1.7	0.01	4.8
Ghost Shiner	1	0.8	1.8	0.01	4.8
Bullhead Minnow	1	0.8	1.2	0.01	4.8
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
		0.0			0.0
Total - Species	119	100.0		0.21	100.0

DATE: 9/24/03 STATION: RM 106.4 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard Shad	366	60.1	2.4-12.6	89.45	28.5
Spotted Bass	31	5.1	3.8-10.8	10.13	3.2
Bullhead Minnow	30	4.9	1.6-2.7	0.20	0.1
Steelcolor Shiner	29	4.8	1.9-3.6	0.20	0.1
Spotfin Shiner	25	4.1	1.4-2.8	0.10	0.0
Mississippi Silvery Minnow	23	3.8	2.1-3.4	0.16	0.1
Channel Catfish	21	3.4	2.3-26.2	38.57	12.3
Longear Sunfish	13	2.1	2.6-6.2	1.09	0.3
Smallmouth Buffalo	7	1.1	18.2-26.8	43.77	13.9
Freshwater Drum	7	1.1	14.5-28.0	29.41	9.4
Emerald Shiner	7	1.1	2.9-3.7	0.07	0.0
River Redhorse	6	1.0	19.2-24.9	28.94	9.2
Longnose Gar	6	1.0	23.8-27.6	10.26	3.3
Flathead Catfish	5	0.8	10.7-24.7	12.73	4.1
Bluegill	5	0.8	3.6-5.0	0.29	0.1
Spotted Sucker	4	0.7	7.3-18.3	4.76	1.5
Common Carp	3	0.5	17.3-21.6	13.10	4.2
River Carpsucker	3	0.5	17.3-17.9	8.18	2.6
Largemouth Bass	3	0.5	4.3-9.0	0.67	0.2
Slenderhead Darter	3	0.5	2.8-3.4	0.04	0.0
Blue Sucker	2	0.3	24.9-26.7	13.63	4.3
Smallmouth Bass	2	0.3	8.7-10.2	0.53	0.2
Quillback	1	0.2	18.3	3.34	1.1
Sauger	1	0.2	19.4	2.39	0.8
Silver Redhorse	1	0.2	16.6	1.94	0.6
Golden Redhorse	1	0.2	5.8	0.08	0.0
Logperch	1	0.2	3.6	0.02	0.0
Redear Sunfish	1	0.2	3.6	0.02	0.0
Bluntnose Minnow	1	0.2	1.9	0.01	0.0
Sand Shiner	1	0.2	1.9	0.01	0.0
Total - Species	609	100.0		314.09	100.0

DATE: 9/24/03 STATION: RM 106.4 Seine

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotifn Shiner	671	51.9	0.8-2.3	0.75	28.1
Mississippi Silvery Minnow	254	19.6	1.5-3.5	1.12	41.9
Steelcolor Shiner	109	8.4	1.2-2.9	0.26	9.7
Bluntnose Minnow	85	6.6	0.9-2.1	0.14	5.2
Bullhead Minnow	73	5.6	1.1-2.4	0.14	5.2
Sand Shiner	53	4.1	1.2-2.0	0.11	4.1
Channel Catfish	13	1.0	1.2-3.0	0.03	1.1
Eastern Sand Darter	11	0.9	2.1-2.3	0.03	1.1
Ghost Shiner	10	0.8	1.7-1.8	0.02	0.7
Speckled Chub	5	0.4	1.9-2.1	0.01	0.4
Brindled Madtom	2	0.2	0.9-1.3	0.01	0.4
Central Stoneroller	2	0.2	1.7-2.1	0.01	0.4
Striped Shiner	2	0.2	1.3	0.01	0.4
Brook Silverside	1	0.1	2.4	0.01	0.4
Gizzard Shad	1	0.1	2.3	0.01	0.4
Mountain Madtom	1	0.1	1.5	0.01	0.4
Total - Species	1293	100.0		2.67	100.0

DATE: 6/15/04 STATION: RM 119.6 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	88	42.3	3.9-13.0	30.00	16.2
Spotfin shiner	29	13.9	1.6-2.4	0.10	0.1
Mississippi silvery minnow	12	5.8	1.9-3.5	0.07	*
Spotted bass	12	5.8	2.5-11.8	4.71	2.5
River carpsucker	8	3.8	14.9-19.5	18.00	9.7
Flathead catfish	6	2.9	10.8-18.8	7.80	4.2
Freshwater drum	6	2.9	12.0-18.9	11.82	6.4
Longnose gar	6	2.9	20.4-29.2	11.25	6.1
Smallmouth buffalo	5	2.4	17.0-18.3	16.25	8.8
Steelcolor shiner	5	2.4	2.0-2.6	0.02	*
Black buffalo	4	1.9	21.4-31.6	39.50	21.3
Channel catfish	4	1.9	7.9-18.9	5.98	3.2
Longear sunfish	4	1.9	2.8-4.7	0.14	0.1
Bluegill	3	1.4	1.6-6.0	0.28	0.2
Silver redhorse	3	1.4	12.3-24.2	8.98	4.8
Blue sucker	2	1.0	25.5-26.1	12.25	6.6
Bullhead minnow	2	1.0	2.0-2.1	0.01	*
Golden redhorse	2	1.0	13.6-14.5	2.33	1.3
Shortnose gar	2	1.0	23.7-24.2	3.87	2.1
Bigmouth buffalo	1	0.5	23.1	7.25	3.9
Black crappie	1	0.5	10.2	0.65	0.4
Emerald shiner	1	0.5	3.3	0.01	*
Sauger	1	0.5	19.6	2.60	1.4
Shorthead redhorse	1	0.5	16.1	1.76	0.9
Total - 24 Species	208	100.0		185.63	99.9
* L aga than 0 10/	1				

^{*} Less than 0.1%

DATE: 9/17/03 STATION: RM 119.6 Seine

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin shiner	19	46.3	1.1-2.0	0.02	14.3
Mississippi silvery minnow	11	26.8	1.4-2.4	0.04	28.6
Steelcolor shiner	4	9.8	1.6-2.4	0.01	7.1
Spotted bass	2	4.9	2.0-2.8	0.02	14.3
Blackstripe topminnow	1	2.4	1.6	0.01	7.1
Bluntnose minnow	1	2.4	2.0	0.01	7.1
Eastern sand darter	1	2.4	2.0	0.01	7.1
Sand shiner	1	2.4	2.0	0.01	7.1
Western mosquitofish	1	2.4	1.0	0.01	7.1
Total - 9 Species	41	100.0		0.14	100.0

DATE: 6/15/04 STATION: RM 129.7 Electrofishing

NAME OF STREAM: _ East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	96	37.9	3.5-11.1	9.78	8.2
Freshwater drum	18	7.1	7.3-19.2	18.53	15.6
Spotfin shiner	18	7.1	1.5-3.3	0.08	0.1
Spotted bass	18	7.1	5.5-13.0	7.30	6.2
Steelcolor shiner	12	4.7	1.4-3.0	0.06	0.1
Golden redhorse	10	4.0	9.8-14.7	7.25	6.1
Bluegill	9	3.6	3.4-8.0	1.26	1.1
Channel catfish	8	3.2	2.4-21.6	8.80	7.4
Silver redhorse	8	3.2	13.8-21.4	20.00	16.9
Smallmouth buffalo	6	2.4	16.0-22.3	23.45	19.8
Bluntnose minnow	5	2.0	1.9-2.9	0.03	*
Flathead catfish	5	2.0	10.1-18.0	3.76	3.2
Longear sunfish	5	2.0	3.2-5.3	0.30	0.3
Suckermouth minnow	5	2.0	2.4-3.1	0.04	*
Emerald shiner	4	1.6	2.7-3.1	0.03	*
Green sunfish	3	1.2	1.6-1.7	0.01	*
Highfin carpsucker	3	1.2	8.6-13.1	1.90	1.6
Mississippi silvery minnow	3	1.2	2.5-3.5	0.03	*
River carpsucker	3	1.2	13.8-15.3	4.10	3.5
Sauger	3	1.2	16.6-17.9	4.44	3.7
White crappie	3	1.2	6.4-9.0	0.64	0.5
Longnose gar	2	0.8	25.4-27.5	3.63	3.1
Bullhead minnow	1	0.4	1.9	0.01	*
Common carp	1	0.4	15	1.86	1.6
Largemouth bass	1	0.4	11.7	0.87	0.7
Northern hogsucker	1	0.4	3.2	0.02	*
Redear sunfish	1	0.4	7.1	0.32	0.3
Shorthead redhorse	1	0.4	7.3	0.15	0.1
Total - 28 species	253			118.65	

^{*} Less than 0.1%

DATE: 6/15/04 STATION: RM 129.7 Seine

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Spotfin shiner	48	31.8	0.8-2.1	0.06	18.8
Western mosquitofish	35	23.2	0.9-1.7	0.04	12.5
Mississippi silvery minnow	18	11.9	1.3-2.5	0.07	21.9
Steelcolor shiner	14	9.3	1.2-2.6	0.02	6.3
Bullhead minnow	11	7.3	0.8-2.0	0.02	6.3
Eastern sand darter	7	4.6	1.5-2.1	0.01	3.1
Brook silverside	4	2.6	1.6-2.5	0.01	3.1
Bluntnose minnow	3	2.0	1.3-1.7	0.01	3.1
Sand shiner	3	2.0	1.1-1.7	0.01	3.1
Dusky darter	2	1.3	1.4-1.5	0.01	3.1
Spotted bass	2	1.3	1.6-3.2	0.02	6.3
Bigeye chub	1	0.7	1.8	0.01	3.1
Ghost shiner	1	0.7	1.7	0.01	3.1
Longear sunfish	1	0.7	1.4	0.01	3.1
Silverjaw minnow	1	0.7	1.7	0.01	3.1
Total - 15 Species	151	100.0		0.32	100.0

DATE: 6/15/04 STATION: RM 136.9 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Gizzard shad	57	30.6	4.4-11.6	10.51	6.9
Spotted bass	38	20.4	3.1-13.4	12.70	8.4
Mississippi silvery minnow	15	8.1	2.3-2.7	0.09	0.1
River carpsucker	10	5.4	14.7-18.5	22.25	14.7
Spotfin shiner	9	4.8	2.1-3.5	0.05	*
Channel catfish	6	3.2	2.5-22.5	8.39	5.5
Longear sunfish	6	3.2	3.1-5.4	0.49	0.3
Common carp	5	2.7	14.0-24.2	23.00	15.2
Golden redhorse	5	2.7	8.8-13.3	2.96	2.0
Longnose gar	5	2.7	24.7-36.7	10.75	7.1
Steelcolor shiner	5	2.7	2.1-3.2	0.03	*
Flathead catfish	3	1.6	9.4-14.5	2.16	1.4
Quillback	3	1.6	7.3-9.4	0.75	0.5
Silver redhorse	3	1.6	21.6-21.9	12.25	8.1
Smallmouth buffalo	3	1.6	15.4-25.0	13.75	9.1
Dusky darter	2	1.1	3.6-4.0	0.04	*
Bigmouth buffalo	1	0.5	23.6	8.00	5.3
Black buffalo	1	0.5	29	13.50	8.9
Black redhorse	1	0.5	10.7	0.40	0.3
Bluegill	1	0.5	7.8	0.46	0.3
Bullhead minnow	1	0.5	2.2	0.01	*
Chestnut lamprey	1	0.5	8.5	0.04	*
Eastern sand darter	1	0.5	2.2	0.01	*
Highfin carpsucker	1	0.5	11.9	0.82	0.5
River redhorse	1	0.5	24.5	6.25	4.1
Shortnose gar	1	0.5	24.2	2.00	1.3
Smallmouth bass	1	0.5	3.5	0.03	*
Total - 27 species	186			151.69	

^{*} Less than 0.1%

DATE: 6/15/04 STATION: RM 136.9 Seine

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Mississippi silvery minnow	71	31.8	2.2-3.3	0.45	44.6
Spotfin shiner	52	23.3	0.9-2.2	0.08	7.9
Brook silverside	29	13.0	1.3-2.5	0.06	5.9
Bigeye chub	19	8.5	1.6-2.0	0.05	5.0
Bluntnose minnow	14	6.3	1.1-2.1	0.02	2.0
Western mosquitofish	11	4.9	1.0-1.8	0.02	2.0
Sand shiner	7	3.1	1.1-2.0	0.02	2.0
Gizzard shad	5	2.2	2.6-4.1	0.19	18.8
Bullhead minnow	4	1.8	1.4-2.1	0.01	1.0
Channel catfish	2	0.9	2.5	0.02	2.0
Eastern sand darter	2	0.9	1.6-2.3	0.01	1.0
Spotted bass	2	0.9	2.3-2.9	0.02	2.0
Steelcolor shiner	2	0.9	1.8-2.0	0.01	1.0
Dusky darter	1	0.4	1.6	0.01	1.0
Mountain madtom	1	0.4	1.5	0.01	1.0
Silver redhorse	1	0.4	3.4	0.03	3.0
Total - 16 species	223			1.01	

Date: 6/15/2004 STATION: RM 146.2 Electrofishing

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Mississippi silvery minnow	43	22.6	2.4-2.8	0.28	0.2
Quillback	31	16.3	4.5-13.3	3.13	2.2
Golden redhorse	23	12.1	7.1-21.0	33.50	23.9
Spotted bass	14	7.4	2.7-14.2	7.02	5.0
Gizzard shad	10	5.3	8.2-11.3	3.46	2.5
Channel catfish	9	4.7	6.6-24.9	13.63	9.7
Freshwater drum	8	4.2	11.4-15.3	10.76	7.7
Spotfin shiner	7	3.7	1.8-2.6	0.02	*
Suckermouth minnow	7	3.7	2.6-3.0	0.07	*
Smallmouth buffalo	6	3.2	16.9-20.0	21.50	15.3
Steelcolor shiner	5	2.6	2.2-3.4	0.05	*
Common carp	4	2.1	18.4-22.8	14.75	10.5
River carpsucker	3	1.6	13.5-15.8	4.30	3.1
Bluntnose minnow	3	1.6	2.5-2.8	0.02	*
Emerald shiner	3	1.6	3.3-3.9	0.05	*
Black buffalo	2	1.1	23.3-27.6	17.00	12.1
Flathead catfish	2	1.1	12.9-27.9	10.09	7.2
Sand shiner	2	1.1	2	0.01	*
Black crappie	1	0.5	10.6	0.68	0.5
Central stoneroller	1	0.5	2.2	0.01	*
Dusky darter	1	0.5	1.5	0.01	*
Harlequin darter	1	0.5	2.2	0.01	*
Longear sunfish	1	0.5	3.1	0.03	*
Mud darter	1	0.5	2.8	0.01	*
Northern hogsucker	1	0.5	3.7	0.02	*
Smallmouth bass	1	0.5	2.7	0.01	*
Total - 26 Species	190	100.0		140.42	99.8

^{*} Less than 0.1%

Date: 6/15/2004 STATION: RM 146.2 Seine

NAME OF STREAM: East Fork White River

COMMON NAME	NUMBER	PERCENTAGE	SIZE RANGE (INCHES)	TOTAL WEIGHT (POUNDS)	PERCENTAGE
Mississippi silvery minnow	183	44.1	1.8-2.9	1.05	61.0
Sand shiner	75	18.1	1.6-2.4	0.19	11.0
Spotfin shiner	75	18.1	0.8-2.3	0.09	5.2
Bluntnose minnow	19	4.6	1.3-2.1	0.04	2.3
Central stoneroller	16	3.9	1.9-2.5	0.07	4.1
Bigeye chub	14	3.4	1.6-2.1	0.02	1.2
Steelcolor shiner	8	1.9	0.9-3.4	0.02	1.2
Emerald shiner	5	1.2	1.6-2.0	0.01	0.6
Johnny darter	5	1.2	1.7-2.0	0.01	0.6
Quillback	3	0.7	3.7-4.1	0.11	6.4
Smallmouth bass	3	0.7	2.4-2.6	0.03	1.7
Eastern sand darter	2	0.5	2.1-2.2	0.01	0.6
Spotted bass	2	0.5	2.2-2.3	0.02	1.2
Blackstripe topminnow	1	0.2	1.4	0.01	0.6
Brook silverside	1	0.2	2.2	0.01	0.6
Channel catfish	1	0.2	2.2	0.01	0.6
Greenside darter	1	0.2	1.9	0.01	0.6
Silver shiner	1	0.2	2.8	0.01	0.6
Total - 18 Species	415	100.0		1.72	100.0